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ABSTRACT

This guide to the city resources of Charlotte, North Carolina, is also useful as a model guide for other communities. Listed for each of the 145 subjects from "accounting" to "zoning" are community business men and women, organizations, institutions, and individual citizens willing to provide real-life illustrations of subjects often only read about by students. The guide also suggests, for each subject, activities for students and mine-probing questions for teachers. (JH)

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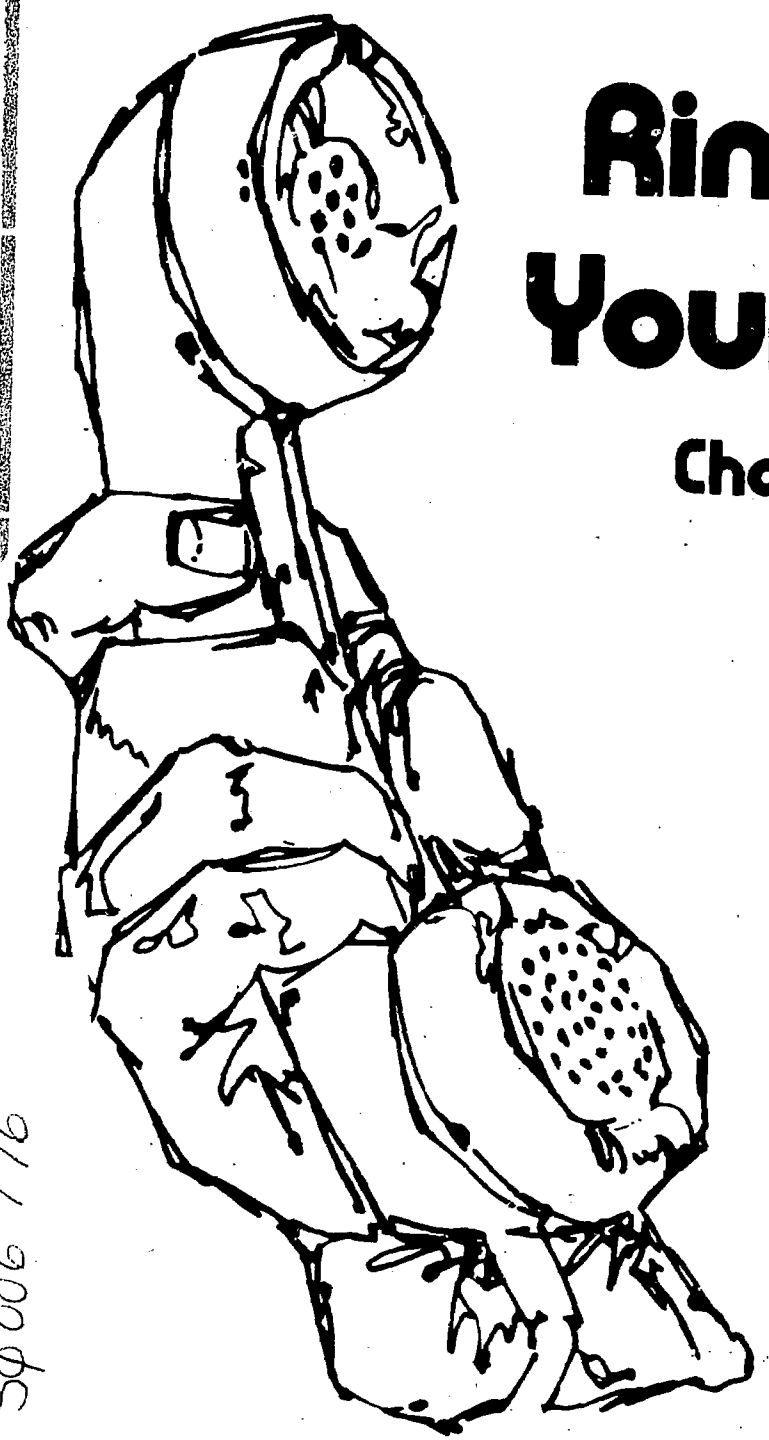

Ring Up Your City

Charlotte

SP 006 776

A Yellow Pages For Teachers

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Ring Up Your City

Charlotte

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EDITORIAL WORD

It is impossible to offer statistical data regarding hours spent and neglected family priorities that have gone into the building of this directory. Certain individuals, however, deserve to be listed at the head of this guide, those who did the initial telephoning and research. They are Mrs. Dotson Palmer, Mrs. Tucker Johnson, Mrs. Bonson Hobson, Mrs. David Dorminey, Mrs. Tom Mann, Mrs. Hugh Campbell, Mrs. W. G. Johnson, Mrs. John A. Mraz, Mrs. Pat Harrington, Mrs. Eric Jonas, Mrs. Tom Brake, Mrs. James Preston, Mrs. Lloyd Baucom; our deepest thanks.

To acknowledge all who have advised and inspired in this undertaking is also impossible. Yet hoping that our appreciation is felt by many, we especially thank Mrs. C. D. Spangler Jr., Miss Becky Bowman, Mrs. Betty Stovall, Dr. Chris Folk and his staff.

The Editors

INTRODUCTION

The explosion of knowledge and the galloping rate of change we're grappling with in today's world pose special problems for students. As adults they will need not only their facts and their three R's; they will need more than ever the ability to question, evaluate, adapt, and function in a society we cannot yet predict. Educators and the public alike are accepting the fact that as preparation for this future, even the ideal classroom is not by itself enough.

The technical improvements of recent years--educational television, audio-visual aids--help vicariously to bring our complicated world closer to the classroom. But still we need more--more first-hand learning, seeing, and doing. Fortunately, the environment of our city is a goldmine of education and stimulation that really makes sense to today's children.

How often do students sit reading about industry while manufacturers' machines hum just miles away? Or yawn over civics workbooks while City Hall and Superior Court bustle with activity within a ten minutes' drive? How often must rooms full of curious children learn only from lectures or printed pages while beyond their schools' windows the city swarms with people who live the subjects daily? Businessmen, artists, writers, scientists, carpenters, bricklayers, electricians, salesmen, retailers, doctors--the variety is rich; and among them are many who will gladly share their everyday knowledge in practical ways with young people who ask, "Why should I learn this? What good will it do me?" And what of the quiet people next door with special knowledge and talents to give? There's the man who can tell you all about purple martins, the lady who makes Catawba pottery, the farmer who has studied and practiced organic gardening for twenty years. There's the senior citizen with an accurate, detailed memory and a large collection of pictures of Charlotte as it used to be and the architect whose personal dreams envision it as it could be in the future.

But seeking out these people and establishing communication with them can be a time-consuming job for the already busy teacher. The idea behind this directory is to give teachers some help in tapping sources of learning in our area. We have located and listed some of the willing resource people in selected fields; then we have added some projects and questions that we hope may lead to occasional new directions of thought and inquiry. This can be only an aid. Teachers will incorporate any new ideas they find here into their own styles, detailing, designing, and adapting their efforts to the learning levels of their students.

This is an open book with no closed subjects or finished formulas. It is a beginning without outer limits, questions but no answers, stimulation instead of instruction. We wish both teachers and students many creative and productive hours in the community classroom!

THANK YOU

It has been especially gratifying to discover so many national corporations, major local companies, government agencies, privately owned small businesses, and talented individuals who are willing to share themselves with our young people. We thank every person, every business, every agency, every commercial establishment, every professional organization that has offered its knowledge, experience, and time.

Because of space and time limitations our selections are incomplete and often picked at random. We wish to extend an invitation to other individuals and businesses who would like to contribute to our educational system in this way to contact Dr. Chris Folk, Communications Department, at the Education Center, to be placed on file.

SUGGESTIONS FOR USING THIS BOOK

The categories chosen for this book are meant to reflect the urban community and society at large in ways that can be used to help teach a wide range of academic subjects to varying age levels. The approach is interdisciplinary, just as everything in the community relates to everything else; therefore, the subjects lend themselves readily to cross-indexing. As you plan any unit using these resources, involve your students in the early stages. When it is finished follow up all activities with shared learning periods; then evaluate the entire experience for yourself, for future reference. Don't stop at the categories here. Add to them at will. Use the format to help design your own approach. Make some good resource contacts of your own, perhaps using the Yellow Pages of the telephone book as a start. If you find additional resource people you feel should be included in any future editions, advise the Communications Department at the Education Center.

The Resources are a map to people and places, materials and information that can expand your classroom into the community. The people and businesses listed were contacted by telephone; each has made a verbal commitment to assist Charlotte-Mecklenburg teachers in the ways indicated, when called upon. We realize that the personnel in business and organizations are subject to change; in this event, it is understood that whoever succeeds to the position will provide the same services.

The business community of our area has responded overwhelmingly to us, and we wish to treat them with equal consideration. Each resource person's valuable time is being given freely to us, and the demands on it may be heavy. We make these requests, then, of each teacher:

(a) Before making a call, determine the purpose of the investigation, the times you suggest for the activity, the size of the group, and the duration of the relationship between you and the resource. Make your arrangements as efficiently as possible.

(b) Except in cases where the person has indicated a willingness to talk to individuals, don't let the students themselves contact the resource people. Even in these cases, direct only genuinely interested students to the source.

The Exercises for Students are possibilities for creative learning projects both inside and outside the classroom. They are ideas to lead to other ideas, all to be geared to students' ages and abilities and to the subjects being taught.

The Questions are primarily for the teachers. They are intended to whip up interest and curiosity, to start trains of thought in divergent directions. We have tried to include many questions broad enough to allow for varying approaches on different levels. Look for ways to connect seemingly unrelated subjects, and don't restrict yourself to categories most obviously called for. For example, in the section on Astronomy, a teacher might find ideas she could use in science, art, English composition, history, mathematics, mythology, or physics.

This directory was put together to supplement standard classroom procedure. Pick it up now and see what it offers.

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ACCOUNTING

Resources

National Association of Accountants, Blue Chapter Chuck Banks, Chairman Educational Committee Kar-Kare, Inc. 889-7275	Will arrange for speaker.
Charlotte Chapter of the N.C. Association of C.P.A. Jim Middleswarth, President 375-8414	Will arrange for a member of his organization to speak to students about the field of accounting.

An Exercise for the Student

Examine such accounting sheets as an audit, a profit-and-loss statement, a balance sheet.

Have an accountant explain them.

Approach the subject from another direction: Have a small businessman tell you about the services he needs from an accountant and their value to him.

Have younger students keep a record of their spending money for a week--receipts and expenditures--to get an idea of the basic purpose and importance of math in everyday living.

Question for Inquiry

1) Develop a well-rounded description of an accountant's profession: the skills and education required, job and advancement opportunities, possible income, working conditions, and the continuing education available.
2) What is the difference between an accountant and a Certified Public Accountant?
3) How many accountants are needed per capita in a community?
4) What are the opportunities for women in accounting?
5) What are the advantages in having an accountant fill out an income tax form? What other such services do accountants perform on a "job" basis for individuals and small business owners?
6) What federal and state laws regulate accounting practices?
7) How are computers used in accountants' work?
8) What were some of the earliest ways men had of figuring sums and accounts? How did these methods differ in the various cultures--Asian, African, American Indian, European, Egyptian?
9) How has the accounting profession changed over the past hundred years? What are some of the causes of these changes?
10) What further changes may be expected?

ADVERTISING

Resources

Cargill, Wilson & Acree William Loeffler, Account Executive 332-9071	Will give programs on careers in advertising.
Charlotte Advertising Club Charles Ray, President Cargill, Wilson & Acree 332-9071	Will put teachers in touch with speaker committee chairman, who will work with teachers to arrange programs.

An Exercise for the Student

Do a comparative study. Collect advertisements from magazines and newspapers; list some current television commercials. Compare them and discuss their good and bad points, their taste and effectiveness. Find out which are the top firms in the United States for national advertising; then try to find which agencies created the advertisements and commercials you have collected and listed. Study how the firms differ in their approaches.

Create an advertising campaign including newspaper and magazine advertisements, radio and television commercials, to sell an idea.

Questions for Inquiry

1) When and how did men begin advertising their wares? What different methods were used in different cultures of the world?
2) How have advertising techniques developed and changed through the ages? What major changes have come about in this century?
3) How do advertising techniques differ according to the media? To the culture?
4) How is psychology used in advertising?
5) What skills and educational requirements does a person need to enter the field of advertising? What kind of income is it reasonable to expect? What kinds of jobs are available? What is the demand in advertising for commercial artists?
6) What social obligations do advertisers have?
7) What federal and state laws govern advertising?
8) Are laws concerning advertising an infringement on the advertisers' freedom of speech? Do they provide protection for the public? For the advertiser?
9) Try to learn some of the ways an advertiser creates an image for a man, a company, or a product. What is your opinion of this image-making?
10) How do firms gauge the effectiveness of their advertising campaigns?
11) How and why does a company select a product symbol such as the RCA dog or the Exxon tiger? Why does a company go to the trouble and expense of changing its name or symbol after once selling it to the public?
12) What changes do you foresee in advertising in the years to come? Do you think there will be more government control or less? Do you think the tastes of the public will change? If so, how--and how will that in turn affect advertising?

AIRPORT AND FLYING

Resources

Douglas Municipal Airport Carolyn Huntley, Tour Director 374-2822	Will arrange and conduct tours and answer questions about the operation of the airport.
George McCormick Pelton Crane 200 Clanton Road 523-3212	Will present program on early aviation from the Wright Brothers up to World War I.
Charlotte Skydivers Hugh Partin, Treasurer 3739 Havenwood Road 536-9615	Will provide names of persons willing to present programs on skydiving.
Eastern Air Lines William Rawlings 1205 American Building 375-3335	Can provide films, posters, and speakers on the subjects of operating an airline and planning trips and destinations.
Atlantic Flight Service Dennis Rickard 545-6652	Will present programs on various aspects of air service and student training.

An Exercise for the Student

Make a model (or models) of early airplanes.

Make a model of an airport, complete with runways, towers, hangars.

Questions for Inquiry

1) How old is the idea of man flying? How far back in history were there attempts at human flight? Who finally succeeded?
2) Where did planes land and take off in the early days of aviation?
3) How much runway is needed for the different planes to land or take off today?
4) How much does it cost to build an airport? Where does the money come from? Who makes the plans for airport construction? Who builds them?
5) Find out all you can about Douglas Airport, including its total ground area, total runway area, expansion plans, traffic capacity, and present traffic volume.
6) What controls does the Federal Government exercise over airports and air travel?
7) What precautions are taken for passengers' safety? How safe is it to fly on an airplane?
8) What makes an airplane fly? How high can planes fly? How does an airplane stay on course while in flight?
9) What kind of fuel is used in airplanes? How much do the different types of planes require per hundred miles?
10) What are the various kinds of airport-based employment available? What training is required for those that interest you? What are the opportunities? The income? The chances for advancement?

11) What is an SST? What are the arguments for and against American development of the SST? How successful have foreign SST-type planes been? What problems have there been?
12) How has aviation changed in the last ten years?
13) How is it likely to change in the future?
14) What current or future airport problems may result from the needs created by the expanding volume of air travel and the changing types of aircraft?
15) What possible solutions may be found for these problems?

ANTIQUES AND COLLECTIBLES

Resources

Dominic Cappelli Pelton Crane 200 Clanton Road 523-3212	Will talk to students about collecting antique cars.
Alice Connor The Plantation House Lower Armstrong Ford Road Belmont, North Carolina 825-3624	Will give programs on antique furniture to groups of no more than fifteen students of high school age. These programs will be given in the shop.
Joe Dumontier Pelton Crane 200 Clanton Road 523-3212	Will give program on old jazz records.
George McCormick Pelton Crane 200 Clanton Road 523-3212	Will talk to students about old airplanes.

An Exercise for the Student

Pretend it is the year 2075. Make a display of interesting and revealing antiques from the 1950's, 60's, and 70's.

Start a class collection of some kind. Arrange it attractively and in order. Label and learn something about each item. This would be adaptable to many subjects and to many grade levels.

Questions for Inquiry

1) How old must an article be to be considered an antique?
2) What characteristics other than age are important in an antique?
3) How is the value of an antique determined?
4) What do antiques tell us about the people and times they came from?
5) What special techniques do archaeologists use to find the age of ancient artifacts?
6) How does one refinish or restore an antique?
7) Think of many other items that people collect, both natural and manufactured. What are some of the most unusual collections known of?
8) What are some of the reasons people build collections? What psychological factors are involved? Is there a point at which collecting can become more of an obsession than a hobby?

AQUARIUMS

Resources

Aquarium Club Scott Adams, President Freeman-White Associates 303 W. Fourth Street 333-8631 523-1518 (Home)	Will provide information about the Aquarium Club, which meets the second Thursday of each month. Will give programs, talk to individuals about setting up aquariums.
Charlotte Nature Museum Navar Elliott Herpetologist 1658 Sterling Road 333-0507	Authority in field of herpetology (reptiles and amphibians). Available as resource for teachers or individuals.
Joe Gayle 6746 Cove Creek Drive 537-9413	Will give programs on aquariums.
Rick Wheeler 1635 Lombardy Circle 334-4358	Will give advice to individuals or programs to groups on setting up aquariums.

An Exercise for the Student

Start and maintain an aquarium.

Questions for Inquiry

1) Where did the term "aquarium" originate?
2) How old is the practice of keeping aquariums?
3) What are some of the most popular varieties of aquarium fish? Describe them and trace their origins.
4) Why are aquariums usually made of glass?
5) Why do you need plants and animals to keep a balanced aquarium? Why types of plants are best used in an aquarium?
6) What else should one add to an aquarium to increase its cleanliness, healthiness, and beauty? What materials or ornaments would be harmful?
7) What different species of fish may be placed together in the same aquarium?
8) Describe the proper care of aquarium fish: the volume, temperature, and cleanliness of the water; the amount and kinds of food; the equipment needed.
9) What psychological effects do home and office aquariums have on people?
10) Where was the first public aquarium? The first permanent public aquarium? Where are other large public aquariums located in the Eastern and Southern United States?
11) What is an oceanarium? Where is an oceanarium that you might sometime be able to visit?

ARCHITECTURE

Resources

Jack Boyte East Boulevard 7819	Will present programs with slides on early architecture in the Charlotte area.

Nature Museum Russell Peithman, Director Archaeologist 1658 Sterling Road 333-0506	Will provide information or present programs on architecture through the ages, in various cultures.
American Institute of Architects Theodore Revis Chairman, Student Liaison Committee Henningson, Durham, & Richardson 364-1800	Will provide teachers with names of local architects who are prepared to give programs on architecture, especially as a career.

An Exercise for the Student

Study some actual architectural drawings and symbols. Look at an architect's scale model, if possible.

Try making a scale model of a small house or office building.

Design a building with Lego bricks.

Questions for Inquiry

1) Why is architecture both a science and an art?
2) Compare the earliest known buildings constructed in diverse areas of the world: China, Japan, the Middle East, Africa, Europe, North America. Compare the materials used, the decoration, the purposes of the buildings, the influence of climate and other special needs of the time and place.
3) How does architecture differ today in these same areas of the world? How do lifestyles help shape the differing designs? Are the newer structures around the world becoming more alike, or not?
4) Through the years, how has the development of new materials made possible important changes in architecture? (Bricks, for instance) Are there any new twentieth-century materials that could revolutionize architecture again?
5) Trace some of the important contributions of form or design made by the Greeks, and the Romans. What were the distinctive features of Gothic architecture?
6) When and why did people develop the concept of city and community planning? How do zoning laws affect architecture?
7) How does weather affect buildings and the design of buildings? What other natural forces does an architect have to take into consideration?
8) How can a building's design affect the immediate environment?
9) Do architects specialize in certain types and styles of buildings? Give some examples.
10) What makes a building "modern"? How do modern architects attempt to make buildings more beautiful? More comfortable? More sanitary? Are they beginning to consider ways of making them more efficient so that there is less waste of heat and power?
11) Who owns the design for a building?
12) What is the difference between a good building and a bad one? Can you think of examples in Charlotte?
13) What are some examples of old architectures in the Charlotte-Mecklenburg area? What is being done to preserve these buildings?
14) What skills and schooling does an architect need? Does his job end after he has drawn the plans for a building? How is his fee set?
15) What are some current controversies in architecture? Some current trends? Some "far-out" ideas being experimented with? Who are some famous contemporary architects? What are some of their well-known works?

Resources

Guild of Charlotte Artists Dean Barber, President Myers Park High School 525-2581 364-4892	Can guide you to several members who are willing to give programs on history of art, art as a profession, art as a hobby. Prefers to be called at the school if possible.
Charlotte-Mecklenburg Public Library Vivian Brown, Tour Director 310 N. Tryon Street 334-2725	Will arrange tours by appointment. A collection of copies of paintings and sculpture are availbabe for loan for period of six weeks. Examples are displayed on the library mezzanine and are changed periodically.
Mint Museum of Art Ann Lambert 501 Hempstead Place 334-9723	Will arrange tours of the museum and programs in the schools; has films to lend; is especially interested in showing the Delhom collection of ceramics and providing books and brochures about it.
Nature Museum Russell Peithman, Director 1658 Sterling Road 333-0506	As an anthropologist and archaeologist, will give programs at the museum or in schools on man's artistic expressions throughout history and in many cultures.
Charlotte Nature Museum Julie Suk 333-5006	Specializes in Black and Asian history, especially as they relate to art. Will give programs at the museum or in the schools.
Studio Shops of Leon Stacks Hugh Weiss Ben Harwood 307 N. Caswell Road	Willing to have students visit the shop; will talk to students individually about art.

An Exercise for the Student

Pick any great sculptor or painter from any time in history. Study his works as carefully and completely as possible; and try to discover from them the artist's style, the media he used, his outlook on life, how he was influenced by the times he lived in, and what he was trying to say in his work.

Analyze and compare selected great paintings for style, technicalities of style, mood, reflection of the times and culture, and revelations about the artist himself. Read the biographies of the artists that interest you most.

Questions for Inquiry

1) How have man's concepts of art changed through the ages? How does it vary in different cultures?
What are some of the characteristics that works of art have in common?

3) Using examples, show how art is both a conscious and an unconscious record of man's past.
4) What and where are some of the earliest known paintings? Sculptures? What materials and methods were used? Do the purposes of these earliest works seem to have been aesthetic or practical? Why?
5) Trace the development of different types of art media (such as canvas, oil paints) and find the significance of each one to the advancement of artistic techniques. What are some materials only recently put to use in art?
6) When and how did art begin to belong to the common people instead of just to the rich and powerful?
7) What is it that compels artists to create, regardless of what hardships or proverty they suffer as a consequence, and regardless of how their work is received by those who see it?
8) Differentiate between fine art, folk art, and commercial art.
9) Folk art is a current trend. What are some examples of this type of art? What wider movements in society does this trend reflect?
10) How is symbolism used in art? What are some of the symbolic motifs found in the art from different times and cultures? What meanings and levels of meaning can be found in them?
11) How have works of art been vehicles of communication in religion? In human understanding? Across cultural barriers?
12) Must art communicate in order to be art?

ASTRONOMY

Resources

Charlotte Amateur Astronomy Club J. C. Boling, President 537-2056	Charlotte Amateur Astronomy Club meets at 7:30 the fourth Monday of each month at the Nature Museum, 1658 Sterling Road. Visitors welcome.
Mrs. Luther Kelly Retired Director of the Nature Museum Planetarium 1014 Kenilworth Avenue 332-2958	Willing to give programs or to talk to students individually.
Gayle Rigsbee Director of the Observatory located at Country Day School 524 Betonley Avenue 366-2084	Will arrange programs at the Observatory.
Charlotte Nature Museum Beth Wallace 1658 Sterling Road 333-0506	Specializes in programs for the fourth and eighth grades. Will also plan programs for other levels.
Nature Museum James Seebach, Director of Planetarium 1658 Sterling Road 333-0506	Will arrange programs on astronomy at the museum or elsewhere.

An Exercise for the Student

Make a telescope.

Make a model of the solar system (a) in a viewing box, (b) as a mobile.

Observe the heavens through a telescope some evening. Find the visible constellations.

Questions for Inquiry

1) What is the difference between astronomy and astrology?
2) How long have men studied the stars?
3) Try to imagine yourself a primitive human being. There are no calendars or clocks; there is no writing, no government, no body of scientific knowledge; there is no way of understanding where or what you are. Your whole life is at the mercy of nature and the elements. What would be the most unchanging, the most dependable reference points in your life? How important would this be? How much a part of your everyday life would this become? In what ways?
4) What are some of the ideas early man had about the heavens? Trace the continuing changes in these concepts. How are they still changing?
5) What new developments have occurred in astronomy in just the last decade?
6) How do men study the stars? How have they studied them in the past? Describe some of the modern equipment that has advanced our knowledge of the universe.
7) Find out the meaning of these terms in astronomy: plant, star, eclipse, "variable" star, comet, light-year, Milky Way, astronomical unit, pulsar, quasar, white dwarf, red giant, black hole.
8) What are some of the practical, even ordinary, uses of the study of the stars?
9) The distances in space are incomprehensible to us. Try to find through research a good analogy to give a better idea of the immensity of space. One suggestion is the chapter on size in Robert Jastrow's book, Red Giants and White Dwarfs.
10) What is meant by the statement, "Man is made of stardust"?
11) What skills and education are needed to be an astronomer? How long does it take to become one? What careers are open to someone who studied astronomy?
12) Is there life on other planets?
13) What do you think about UFO's?
14) What plans do we have for future travel in space? In what ways has space exploration already benefitted mankind? What other benefits may come from it in the future?

ATTORNEYS

Resources

Mecklenburg Bar Association Pender McElroy, Chairman Youth and Law Committee 334-7281	Will provide names of lawyers willing to talk to students or give programs concerning the legal profession.
City-County Courts Mrs. Patricia Hemphill 374-2734	Will provide information as to when classes might visit the courts in session.

An Exercise for the Student

After some study and research, role-play a complete legal situation: arrest; booking; bond or jail; conference with a lawyer; and trial with legal representation, judge, jury, and verdict.

Questions for Inquiry

1) Can one visit the courts, the law library, and office of lawyers to learn about the law or the legal profession? What arrangements would have to be made?
2) What kinds of courses in high school and college should a prospective lawyer take? How much schooling after college is required? After graduating from law school, what other requirements must a person meet before being allowed to serve as an attorney? How open is the field of law to women? How are attorneys compensated for their work?
3) What opportunities are there for lawyers in other fields, such as business, government, and teaching? How does a lawyer become a state or federal judge? How are opportunities for lawyers increasing in the field of social service or public interest?
4) Does legal training and experience give lawyers any special opportunity for service in civic and government affairs?
5) How many different sets of rules are we governed and controlled by?
6) In what books and kinds of books are the laws and rules governing conduct found?
7) How do laws and other rules controlling the conduct of people in society come to be? Who, other than legislative bodies, makes our laws?
8) How are laws and controlling precedents changed in our country?
9) What are the two principal systems of law in the western world called? How did each arise? What countries or groups of countries use each system? What are the main differences between the two systems? How do you think the role of an attorney might differ under the two systems?
10) What are laws providing for punishment called? What is the rest of the law called? Which of these two sets of laws affect the majority of the people in the most number of ways? How?
11) On what occasions might an ordinary citizen need a lawyer? Can a person without a law degree represent himself? Should he?
12) What happens to a person upon being arrested for a violation of the law? Does the seriousness of the crime affect what happens at the time of arrest? What should a person do if arrested? What takes place afterwards up to the time of trial? Is there a permanent record of a person's arrests whether or not he is found guilty of the crime?

AUTOMOBILES

Resources

Buddy Baker Race Car Driver 4914 Sharon View Road 366-0000	Will give lectures or talk to stu- individually about the racing industry.

Carolina Motor Club 701 S. Tryon St. Z. V. Cockerham 376-7511	Will provide information and literature having to do with traffic statistics, traffic predictions, safety.
Greater Charlotte Automobile Dealers 715 S. Tryon St. Jack Farr, Executive Director 334-5469	Will direct student or teacher to the proper person to talk to concerning any career in the automotive industry.
N. C. State Motor Club 2422 N. Tryon St. Bill Hensley 332-8507	Will talk to student or teacher, answer questions or direct to the proper source of information; will provide literature and films having to do with such subjects as safe driving and traffic laws.
Charlotte Motor Speedway Harrisburg, N. C. Bob Latford 455-2121	Will give lectures, show films or film strips concerning the racing industry.
N. C. Department of Motor Vehicles North 29 Highway John F. Richards 596-5089	Will talk to student or teacher and direct to proper source for information, literature, films having to do with safe driving and traffic laws.
Holman-Moody, Inc. Douglas Municipal Airport Bob White 394-4141	Will provide literature and talk to students interested in the construction and maintenance of racing cars. Occasional visitor to shop welcomed.

An Exercise for the Student

Have each student design his own individual plan for solving the worst problems caused by the automobile society. He or she should strive for the maximum freedom possible that allows the least possible harm to society and the environment. The plan might include suggestions for alternative power sources; changes in car size and engine design; introduction of new legislation; ideas for planning and constructing both mass transit systems and bicycle lanes--and selling such ideas to the public. This project would encourage the use of much research and imagination.

Get an expert on mechanics to explain how the piston engine, the Wankel engine, and the diesel engine work. If possible, get some actual engines and car parts to study while the expert is with you. Better yet, round up an old car to work on and learn from. Become acquainted with all the basic parts of an automobile.

Questions for Inquiry

The automobile has had possibly the greatest influence of any one machine on the way people live, work, play, and die. Even its production revolutionized industry. These questions are designed to inspire inquiry within the framework of that total picture.

1) About how many motor vehicles are there now in the U.S.? How many is that per person? What percentage of these are passenger cars? How many miles does the average car owner drive per year?
2) What percentage of the working population is employed in some way in the automotive industry?
3) What is the car-manufacturing center of the world? Why there? What are the major companies? How well do they serve the public?
4) What are some careers a person might consider in the automotive industry? What preparation is needed? Where do the greatest needs for workers lie? Are these careers open to women as well as men? What kind of person would make a good auto mechanic?
5) What causes the wide range in costs of different cars? Compare some of these prices. How long should a car last? How long do most of them last?
6) What laws govern the manufacture, production, and sale of cars?
7) Trace the development of production methods in the automotive industry.
8) What problems have arisen with the assembly line methods of manufacturing? What experiments are being tried-- by Volvo, for instance--to combat these problems?
9) What percentage of urban land is devoted to cars in the form of streets, parking lots, gasoline stations, car lots, and junkyards? How many miles of highways are there in our country.
10) Name some of the ways all parts of society cater to the motorist. (Drive-in's, etc.)
11) For what reasons, good and bad, do people use cars? For what reasons does the average amount of usage continue to grow? Of what psychological value can ownership of a car be? Is it a status symbol? A sex symbol? How many two-car families are there in the U.S.? What patterns of society sometimes make the two-car family a necessity?
12) How many people died last year in automobile accidents in the U.S.? In the last ten years? How does the number of lives lost in car accidents in our country compare to the number lost in its wars? Under what conditions and circumstances do the most car accidents occur? What could be done to lessen this death rate?
13) What effects, other than land use, does the automobile have on our environment? What are its worst pollutants? What remedies are being tried? What others are planned? What further ideas could you suggest?
14) What other sources of energy besides gasoline are capable of providing energy for cars? What drawbacks are there? What research is being carried on with these sources? With change in car design? What are some of the improvements, both mechanical and aesthetic, that we may see in the future?
15) How efficient is an automobile in a city today as compared to a horse-and-buggy in the cities of a hundred years ago? As compared to a bicycle where special lanes or paths are provided for it? What are some alternatives as car population grows?
16) At what point does a freedom-giving invention like a car reach such saturation that it actually begins to restrict freedom? At what point do people become the slaves of their machines?
17) Find out about the role of automobiles in other countries and compare them with the U.S. What drastic differences in ways people live can be attibuted to the amount of automobile usuage? What advantages and disadvantages are there in these ways of living? How much does the prevalent living style affect the need or demand for automobiles?

BAKERIES

Resources

Merita (American) Bakeries
301 S. Interstate 85
Mr. Dave Richardson, Assistant Plant Manager
394-1181

Will provide speakers and arrange tours of the plant.

Krispy Kreme
2901 S. Boulevard
Mrs. Clara Elder, Secretary
525-0708

Will provide speakers and arrange tours.

Holsum Bakeries
Cox Road, Ranlo, N. C.
Mr. Bill Brown
864-6223

Will arrange tours.

An Exercise for the Student

Have a speech contest. Your subject is "The care and preservation of the homemade cookie." Suggested criteria to use in judging would be originality, organization of material, effectiveness of presentation, etc.

Questions for Inquiry

1) What has sea level got to do with baking? What thermo-dynamic principles are involved in baking?
2) Compare the quality and price of a store-bought item with a homemade goodie.
3) Write a poem about life in a moon pie factory.
4) How would you do your baking if you were an Egyptian woman living in 1500 B.C.? A back-to-nature camper of today? An Indian in the Guatemalan jungle?
5) What is the story behind the Jewish practice of unleavened bread?
6) Examine and explain the statement: "Bread is the staff of life."
7) How does baking in quantity affect the quality of the product?
8) How does a commercial bakery depend upon quality control, advertising, and merchandising techniques? What hazards plague commercial bakeries?
9) Do a study of the different national breads of countries (i.e. Russian Black bread, Mexican sopapillas).
10) Research the history behind the serving of baked sweets for different important holidays.
11) Bread dough is used to make jewelry. Find out other uses of bread.
12) On a map of the world indicate the grain-producing areas.
13) Have a contest where each student pretends to be a bakery product and acts out a charade. The winners are awarded a delicious goodie.

BANKS

Resources

NCNB
Mr. Joe Claud, City Executive and Senior Vice-President
-5000

Will provide speakers and arrange bank tours.

First Union Mrs. Betty McDow, Secretary of Public Relations 374-6401	Will arrange guided tours of their bank and provide classroom speakers.
Wachovia Mrs. Sharon Woodall, Communications Secretary or Mrs. Ann Farley, Communications Specialist 374-7796	Will send speakers to the class and design tours for any grade level.
Federal Reserve Mr. Robert F. Stratton, Senior Bank and Public Relations Representative	Even though tours no longer are allowed, they do have publications, films, and speakers for classes.

An Exercise for the Student

As a class, design a board game, like Monopoly or Clue, which would involve the various activities of banking.

Questions for Inquiry

1) Most bank employees never touch the currency that the bank borrows and lends. Do job profiles on all of the personnel employed in a bank.
2) Research and report on a world famous banking family.
3) What part does modern advertising play in competition between banking institutions?
4) What is the magic of a Swiss bank account?
5) What economic factors determine bank interest rates? What federal laws?
6) Why are banks so competitive in their building programs?
7) How do banks attempt to safeguard against robberies?
8) What services do banks offer in addition to the transfer of money?
9) Pretend that you are a one dollar bill freshly deposited. Relate your experiences upon crossing to the other side of the teller's window. How far might you travel in your lifetime? How does a dollar increase, decrease in value?
10) Since the crash of 1929 how are we protected against bank failures?
11) For what services does a bank depend on the Federal Reserve?
12) How does a clearing house serve private banks?
13) What causes a "run" on banks? What can result therefrom?
14) Describe the international banking system.
15) Can just anyone start a bank if they have a certain amount of capital?

BICYCLING

Resources

Chipley's Park Avenue Hardware 130 East Park Avenue Mr. Chipley, Owner 376-4392	Will provide store tours and classroom demonstrations.

Eastway Cyclery 2925 Eastway Drive Mr. Judd Gruber, Owner or Mr. Wilkes Caldwell 537-6510	Will speak on all types of bicycling, the care of bikes and choosing one.
Tar Heel Cycle Club Mr. Al Lizarazo, Treasurer 366-3511, Day 525-8151, Night	Meets the last Monday of each month in homes of members. Sponsors tours, rallies and races.

An Exercise for the Student

Have a bicycle design contest where students are encouraged to come up with the most elaborate, outlandish cycle they can.

Questions for Inquiry

1) What principles of motion are involved in bicycling?
2) Explain how the increase in the number of gears affects the usability of a bike.
3) If you could travel to your "dream place", would a bike take you there? Describe your trip.
4) What are some reasons behind the Renaissance of the two-wheeler in the U.S.?
5) How do other countries compare to the U.S. in number of bikes per capita? Can you give reasons for your findings?
6) Write a story in which you emphasize the hazards a cyclist encounters in the course of a day's ride.
7) You have been asked to design bicycle tours of the area covered by Charlotte's fifty mile radar weatherscope. Design a brochure which would encourage cyclists to follow you as a tour guide.
8) What accessories would be essential for a cross-country bike trip? Read of some of the fascinating long trips that are being taken now, from Trans-Canada to Around the World ... but not in eighty days!
9) Find some cities where some planners have taken into consideration the cyclists and have provided special routes and trails for bikes. How might we in Charlotte make some adaptation for cyclists?
10) Should cyclists be licensed like automobile drivers? How can bike safety measures be improved?
11) Do a character analysis of the racing enthusiast, the touring buff, and the exercise pedaler.
12) What can be done about the increasing amount of bicycle thefts? What are the prospects for getting your bike back after it has been stolen?
13) How have certain countries given special privilege and attention to bicyclists?
14) Instead of a car in every garage, should it be a bike on every back porch to offset the energy crisis?

BIRDS

Resources

Bird Sanctuary-"Winghaven" 248 Ridgewood Ave. Mr. & Mrs. Edwin O. Clarkson 332-5770	Tours by appointment Monday, Tuesday, and Wednesday.

Audubon Society
Mr. Nathan Hale
364-2115 (Office)

Can speak to classes.

An Exercise for the Student

Each student should make as complete a study as possible of one particular bird. Studies should conclude in reports containing such things as vital statistics, illustrations of anatomy and plumage, descriptions of habits and housing. As a final activity each bird should then be compared to some human characteristic or activity.

Questions for Inquiry

1) Explain and illustrate how birds are engineered for flight. What do our airplanes owe to the bird?
2) At what speeds and heights do different birds fly? Make a graph to show these differences.
3) Do all birds fly? Explain.
4) If you could be any bird you wanted. [illegible]h would you be? Express your choice in poetry.
5) What species of birds are found in Charlotte in the spring, fall? In North Carolina?
6) Modern civilizations have caused many bird species to become extinct. What efforts are being made to protect those endangered birds of the U.S.?
7) What are the reasons for bird and game preserves?
8) Many, if not most, countries claim a "national" bird. How and why do you think these selections were made? What does the eagle say about the U.S.? What does the Quetzal say about Guatemala?
9) Do birds' nesting, eating, migrating habits vary within a species?
10) How do science and medicine use birds in laboratory experimentation? What new insights have been gleaned about man through the study of birds?
11) Discover how certain ethnic cultures have used bird plumage for decorative and ceremonial purposes.
12) Do birds talk? Think? What is meant by the "pecking order"?
13) Map the migratory habits of a particular species of bird.
14) Contemplate the thrill of seeing a lake filled with pink flamingo, a brace of wild swan in flight formation, a baby Blue Jay responding to love of children who have nursed him back to health.
15) Trace the origins of some of the common names of birds. Why is Latin used for scientific names?
16) What are the stories behind some famous mythological birds? How have birds been used as symbols?
17) Compare the longevity and lifestyle of a particular bird with those of a predatory animal.
18) What uses do birds have in preserving the balance of nature?
19) If you were the world's smallest bird, how would you regard the largest bird? Would you try to be friends? What advantages would <u>you</u> enjoy? Is size important? Are most of the big ones dumb? Or just nice guys?
20) Make a bibliography of important literary works which revolve around birds.
21) Become more aware of birds this school year and put out feed for them to help them survive through the long winter.

Resources

Sea Safe Marine Co. 3730 Monroe Road Mr. Tom Graham, President or Mr. Bob Walters, Vice-President 334-6429	Can arrange tour to see boat building in action.
Charlotte Power Squadron Mr. J. Toms Dover, District Commander 525-4212	Maintains a speakers' bureau who will give slide presentations on boating safety.
U.S. Coast Guard Auxiliary Mr. Marston R. Webb, Charter Member of Charlotte Chapter 366-7962	Will speak to classes on boating safety.
Catawba Yacht Club Mr. David Newton, Commodore 364-0130	Can provide classroom speakers on sailing.
Lake Norman Yacht Club Mr. Mason R. Chrisman, Member Board of Directors 333-1276	Will provide classroom speakers on sailing.

An Exercise for the Student

Using the most elementary materials construct a small boat. Launch your boat in a lake, stream, or large mud puddle. Take pen and paper and write down all the facts you know about your boat--its composition, design, seaworthiness. Now pretend that you are a tiny creature who sails your boat from port to port. Write a poem using sea language about your adventure as a sea captain.

Questions for Inquiry

1) Describe the principle of motion involved in rowing a boat.
2) Imagine that you are a Stone Age man. Stand beside the largest body of water in your geographical area and imagine some reasons why you would like to build a boat.
3) Describe the different kinds of power used to propel boats and the most typical designs of each.
4) In each of the following literary works water is vital to the story. Describe the relationship between the main character and the body of water involved: The Odyssey, 20,000 Leagues Under the Sea, Huck Finn, Moby Dick, etc.
5) What life forces, superstitions and myths are associated with the sea and boats?
6) Describe and illustrate some of the more unusual of both ancient and modern boats.
7) Discuss some famous ships from both fact and fiction.
8) Investigate the fascination of the sea in the visual and performing arts; the viewpoints of different cultures and different periods in history toward the sea.

9) Speculate the rise to power by past countries because of their dominance of the sea and its major routes.
10) Try to break the codes of ships' flags and the language of semaphore.
11) "Waterways have been the highways of discovery". Discuss this statement in regards to the exploration and consequent opening of the U.S. West and of other continents.
12) Pleasure boating has increased enormously in the U.S. in the past decade. What factors helped to cause this and what problems do we now face because of it?
13) How does seaport traffic in the U.S. compare with that of other means of transportation?
14) Take another look at a map of North Carolina. Where are the lakes, waterways, and sea accesses located? What implications does this hold for the future growth of new communities?
15) How do state regulations vary in controlling boat use and safety? Can those in North Carolina be improved?
16) Write limericks, rhymes, and couplets about sails on the horizon or a storm at Hatteras, or about anything having to do with the sea and how you feel about it.
17) What are some of the most famous of the world's sailing and power boat races and their record times?

BOTTLES

Resources

Pepsi-Cola Bottling Co. 2820 S. Boulevard Mr. Tucker Johnson 523-6761	Offer tours of their plant and will gladly supply speakers on the bottling industry.
Coca Cola Bottling and Canning Plant (To open January 1974) 4901 Chesapeake Drive Mr. Archie Knotts, Vice-President of Manufacturing 376-4411	Will arrange tours of their new plant facilities.
Carolina Antique Bottle Club Mr. Robert L. Jones 5620 Merrymont Drive 366-3882 home 588-1100 office	Meets the second Thursday night of each month at the offices of Industrial Piping, Downs Road, Arrowood. Can provide information and speakers to classes.

An Exercise for the Student

Spend several Saturdays looking for discarded bottles. Write on index cards when, where, and how each bottle was discovered. Choose your three favorites and make them come alive by directing personalized questions to each. What do the bottles say?

Questions for Inquiry

1) We tend to think of bottles as being made of glass. In other cultures and

other times this assumption does not prove out. Of what other materials have bottles been made? For what purposes were they used?
2) You are the originator of glassblowing. Go back in time to your own civilization with tales and facts you have gathered in a modern Pennsylvania glass-bottle plant.
3) What effects did the Industrial Revolution have on bottle-making?
4) Have the class brainstorm the word bottle. List on the board all of their responses (i.e. ships in bottles, genie in a bottle, alabaster vases in the Bible). Ask the students to collect pictures of bottles or in some way illustrate their associations.
5) "The export of the American soft drink has revolutionized drinking habits around the world." Debate this statement. What's it like to take a Coke or Pepsi break in Katmandu?
6) Write an imaginary conversation between the world's largest bottle and its smallest.
7) What are some creative ways broken or discarded bottles can be used? What of the ecological problems caused by our fascination with pop?
8) What items cannot be bottled? Why?
9) Graph U.S. consumption of soft drinks to that in Japan, Mali, Columbia.
10) Bottle collecting has become the rage in the U.S. What characteristics does a collector look for in a desirable bottle?
11) What properties of glass bottles make them practical in food preservation and preparation?
12) Visit a bottling plant and determine how its operation can be improved.

BRICKS AND BRICKLAYING

Resources

Boren Clay Products Co. Kendrick Division 3235 S. Boulevard Mr. Holland, Mr. Yandle, or Ms. Irene Jones 523-6716	Will gladly arrange plant tours and provide speakers from the Brick and Tile Association.
Brookshire Masonry Contractors, Inc. 5712 Daphne Drive Mr. C. D. Brookshire	Can speak to classes interested in brick masonry. Can also explain the apprenticeship program.

An Exercise for the Student

Observe the different colors, textures, uses and designs in buildings, wall, patios, and walkways. Can you arrive at some hypothesis from the data you have collected?

Questions for Inquiry

1) What characteristics of brick make it so popular as a building material?
2) Why do some areas of the U.S. use brick in abundance and others very little?
3) Make a list of all the facts you know about bricks. Knowing these things, what does it mean to say a person is a "brick"?
4) What various raw materials can go into the making of brick? What produces

shade and coloration in brick? What improvements in bricklaying have brought more durable, less absorbent bricks?
5) Make a dictionary of bricklaying and brick terms (i.e. bond, headers, kiln, hod, bull nose, interlocking, etc.)
6) Brick buildings are among the most beautiful in all architecture. Why are so many of the larger buildings not using brick in construction?
7) Think of as many uses of the common brick as you can.
8) Blindfold your eyes and with your hands investigate a brick wall. What new insights have you discovered?
9) When you build yourself a home, what exterior building material might you like to use? What are your reasons?
10) Speculate on the reasons for so many Charlotte homes being made from brick.
11) What nuances in bricklaying does a good mason look for?
12) Has the use of brick been slowed by the introduction of new construction materials?

BUILDING

Resources

Ervin Co. Mr. H. A. Wheeler 535-3660	Can provide speakers and help to arrange on construction site tours.
John Crosland Co. 145 Scaleybark Road Mr. French Williams, General Superintendent or Mr. John George, Sales Manager 523-8111	Will arrange tours. Will provide Speakers.
Southern Engineering Wilkinson Boulevard Mr. H. L. Hance, Jr., Vice-President 399-8331	Will provide speakers, film presentations and literature. Also offer tours of the plant which fabricates structual steel for buildings and bridges.
Gifford-Hill and Co., Inc. 3823 Raleigh St. Mr. Joe Mallamo, Sales Mgr.	Can arrange tours of plant making pre-stressed concrete and can offer speakers and programs to classes.

An Exercise for the Student

Visit a large construction site. Make a list of all the machinery and activity on the site. Which piece of machinery, which job, interests you most? Does the pace of construction seem fast or slow to you? Notice how antiquated some building methods seem. Analyze job and material efficiency and waste. Choose one job you observed and suggest improvements in performance.

Questions for Inquiry

Building is a tiny child with blocks, the construction of a bridge, trenching a

canal, steel-reinforcing a subway. Building is model airplanes and real cars. Building covers a host of putting together activities.

1) One particular building results in an architectural edifice which is designed to accommodate particular activities. Observe buildings in your city and categorize them in as many ways as you can.
2) In your own home what building materials were used? From what raw materials are they made? Where did the raw materials originate and what processes resulted in the finished product?
3) What industrial advances have made concrete and steel feasible as building materials?
4) What has location to do with building specifications?
5) Explain zoning laws and why they are important.
6) Describe buildings and materials in other parts of the world which differ from those used in the United States.
7) Construct a house to scale out of some inexpensive materials, such as toothpicks, cardboard, matches, or popsicle sticks. Analyze the construction problem you encountered.
8) Are ocean cities, sky and underground cities possible in the near future?
9) If you became a builder what wild building would you dream?
10) Hypothesize as to why man has chosen the particular forms of building that he has.
11) Choose one building in your neighborhood and add to its outside design anything you would like. What did your elaboration do to the original?

BUSES

Resources

Union Bus Terminal
418 W. Trade St.
Mr. A. B. McGaha, Mgr.
376-1260

Will provide speakers and arrange tours of the depot.

Charlotte City Coach Lines
707 N. Brevard St.
Mr. W. M. Albritton,
Assistant Resident Mgr.
372-1293

Will arrange tours and provide speakers to secondary classes.

Greyhound Lines East
616 W. Trade St.
(New facility to open Fall '73)

Tours can be arranged.

An Exercise for the Student

Ask each child to relive for the class his most exciting bus ride. These verbal stories should be a mixture of fact and fiction. Before telling his story the student should outline on paper the major points he wishes to make.

Question for Inquiry

What are the advantages of traveling by bus over other modes of transportation?

2) In addition to passenger transport what services do buses offer?
3) What necessary differences in design exist between a school bus, a city bus, and a transcontinental express?
4) Statistically how will the bus industry be affected by a gasoline shortage or even a slight rise in the price of gasoline?
5) What principles of speed and motion are exemplified by the bus? How could the design be improved upon? Will buses ever be in tandem as some of the big transport trucks are?
6) If you ride a bus continously over the same route, on your next ride make note of every part of the bus that you can see, feel, hear. How many of your senses can a bus ride call into action?
7) And on another of your bus rides, actively concentrate on critically observing the city as you drive on your route. What new things did you discover?
8) How much orange and black paint would be needed to repaint all of the school buses in our system? What is the lifespan of an average school bus? Compare our school busing system with that of another city of comparable size.
9) Discuss the feasibility of a fully automated remote control operated city bus system of the future. How can we get more people riding city buses to work instead of driving?
10) What's it like to ride a third class bus in Mexico or Syria?
11) "Once upon a time there lived a little old school bus who had traveled thousands of passenger miles to and from schools. She had never had an accident until one day some children...." Finish the story.

BUTCHERING AND MEAT PACKING

Resources

Mecklenburg Abattoir and Locker Plant Beatties Ford Road Mr. C. W. Kidd, Owner or Mr. Jack Oxidine, Mgr. 399-6139	Will gladly arrange tours of the plant.
Lay Packing Co. 3801 Corporation Circle Mr. Cliff Faulkner, General Mgr. 394-0181	Will arrange tours for the 5th grade and up.

An Exercise for the Student

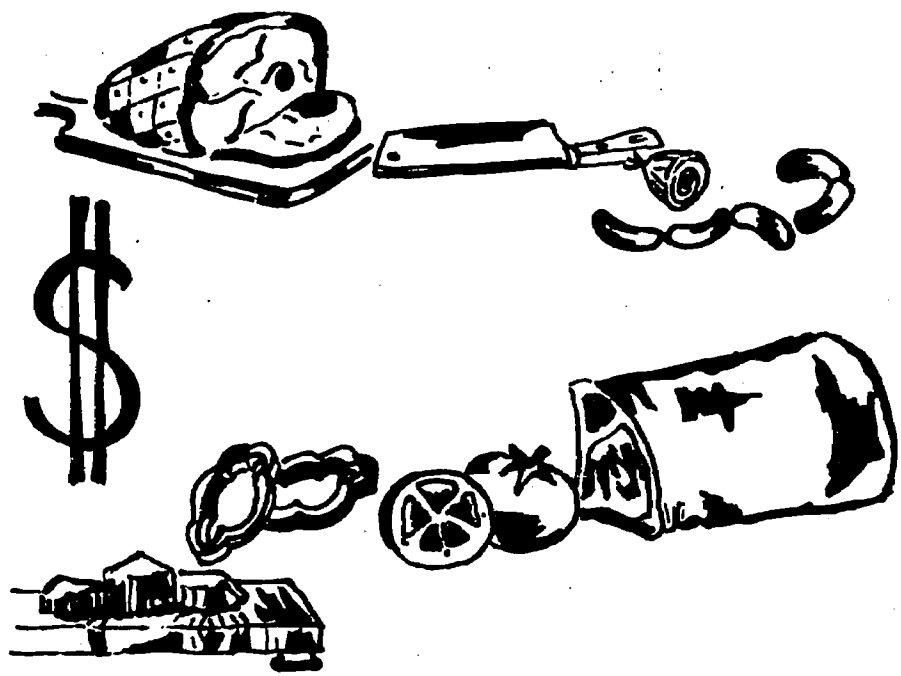
Collect and display in the classroom pictures of as many of the meat-producing animals as possible. Ask the students to speculate about the life and events experienced by the pictured animals. How else do these and other animals serve man's needs?

Questions for Inquiry

1) What are the relative values of high grade vs. low grade meats? The important vitamin and mineral content of meats?
2) What are some items being tested that might serve as meat substitutes? Can a pill really taste like a T-Bone steak?
3) Do Americans consume more meat than necessary? Compare graphically with consumption in other countries. Can body harm result from eating too much

meat?

4) What is sausage? Are hot dogs just sausage in disguise?
5) How much waste is there in a slaughtered animal? What uses are made of the waste?
6) List all of the economic and agricultural factors which affect meat prices.
7) Each ethnic group of the world has a favorite meat. Determine and give possible explanations for their individual preferences.
8) What's it like to buy meat in the native market of a Middle Eastern country? How is it different from what we are accustomed to?
9) The history of the meat packing and slaughtering industry in the U.S. is a clash between private business and government controls. Are present regulations adequate to protect the consumer?
10) Discuss new slaughtering and refrigeration methods. Who benefits from these improvements? How?
11) Prepare a series of map overlays to show meat producing areas of the world.
12) How do animal lovers view the practice of mass slaughter? Religions?
13) Review the entire process of hoof or claw to counter.



Resources

Jesse Brown Backpacking 224 Independence Blvd. Mr. Jesse Brown 334-5205	Will show film "By Nature Rules" and will bring backpacking to demonstrate a talk.
Apache Camping Center 5511 N. Tryon St. Mr. and Mrs. Jerry Dupree or Mr. Ford Whitner 596-0455	Trailers and speakers available for PTA programs, classes, etc.
Sierra Club 818 Henley Place Mr. Durwood Early, President 364-6201	Will be delighted to talk to classes and show equipment on camping and ecology.
Boy Scouts of America Mr. Eugene Grimes, Public Relations and Program Director 1410 East 7th St. 333-5471	Will supply speakers and information upon request.

An Exercise for the Student

You and your best friend are planning a five day camping trip on the Appalachian Trail. Don't plan to take anything you can't carry for five miles. Get a knapsack and pack the necessary articles. What are absolute camping necessities? What makes for a good campsite? How does one go about setting up camp? Plan your daytime activities, your nightime activities. Discuss proper and suitable bood and its preparation. How do you guard against accidents, getting lost, intruding wildlife?

Questions for Inquiry

1) What are the various kinds of camping? What factors govern the way a person chooses to camp?
2) Why the recent surge of interest in the great outdoors?
3) Why are some camping spots more popular than others? Which areas of the U.S. are heavily camped?
4) Describe some camping hazards and their suitable precautions.
5) If you were a deer, what five big complaints would you have against campers?
6) Choose your way to travel from Charlotte to Los Angeles: Spend each night at a Holiday Inn or pitch a tent in a national forest. Defend your choice.
7) Compare in short story, composition, or essay form the feelings you experience in your bedroom cramming for a science exam with your feelings as you lie on a cool summer evening beside a stream watching the sun set and the stars come out. What factors affect your attitude? How does a camping trip refresh a person's mind?
8) Discuss safety, planning, and other important camping skills.
9) Research the increase of "camping out" in other countries other than the U.S. How widespread is camping?

10) Once the forests were beautiful and natural for the camper or hiker. Now metal trailers and campers jam our roads and camping areas. Interview someone knowledgeable on the subject of changes in camping since 1950.
11) If a person wants every luxury of home, why go camping?
12) Compare permanent campground living with life in the suburbs; in the ghettos.
13) What ecological problems have arisen since the mass invasion of people to our forests?
14) If you were a forest ranger, how would you caution campers in the "do's and don'ts?
15) Is the larger Charlotte area a good place to camp out? Locate some of the more ideal spots and illustrate by drawing a map.

CANDLEMAKING AND CANDLES

Resources

Shed Brand Candle Co. 3619 South I-85 Mr. Marvin Knight, Owner 394-6907	Will come to the school and serve as a resource but visits to the plant are prohibitive for safety reasons.

An Exercise for the Student

Select your favority ghost story. Tell the story in a well-lighted room to a group of young students. Now, with the room darkened and holding a single candle flame below your face, tell the same story. Compare group reactions, participation in the story-telling process, sense of mystery, mood, etc. between the two situations.

Questions for Inquiry

1) Compare the techniques of candle-making in such areas as necessary skill involved, time, materials, costs.
2) Candle-making has an interesting history. Find out how candle-making today compares with the process in 18th century France. Illustrate your findings for a class presentation.
3) What changes in candle use were effected by the discovery and the spread of electricity as a source of power?
4) Light a candle and let it drip on a piece of paper. Watch the candle burn. Watch how it melts and loses itself. List all the things you know about this particular candle. Use your knowledge to generalize about candles. Be a candle and pantomine your story. Be sure to express all the ways a candle might feel.
5) Why doesn't the candle flame drown in its waxy pool? What determines the burning rate of a candle wick? Light three candles and compare their burning rate, the size and brightness of their flames, their personal neatness. What explanations do you have for the differences?
6) Write a poem about the creative candlemaker, the art of candlemaking.
7) How might your life be different if it were lighted by candles and kerosene lamps?
8) Work out a formula for transforming candlepower into electric wattage.
9) Define some instances in which candle light is used to create or produce certain psychological moods. Explain possible reasons for these effects.

10) The state of North Carolina is famous for its candles. What kinds of candles are made here and why to such an extent?
11) Have the class collect as many different kinds of scented candles as possible. Light them one at a time and try to identify each scent. How often does the color indicate the scent?
12) What is it about candlemaking that makes it a satisfying hobby?
13) In your imagination design a. the world's largest candle; b. smallest candle; c. a deadly candle; d. a sinister candle; e. a thrifty candle; f. an ugly candle.

CANS

Resources

Package Supply and Equipment Co. 101 Lawton Road Mr. Ralph Doster, District Sales Mgr.	Will tell you whom to contact for information about a specific product.
American Can Co. 2500 Independence Blvd. Mr. Bob Miller, Salesman 375-8426 (Mrs. Sherrill will do the scheduling)	Will come to the classroom to speak.
Piedmont Natural Gas Mrs. Jean Gerken, Home Service Director 525-5580	Will supply information and speak to the subject of home canning.

An Exercise for the Student

Suppose that you are a modern pressurized can full of sweet, delicious whipped cream. Compare yourself with a steel and tin-plated can from the early 1880's. Some people believe those first cans were the best---more pure, more substantial, more direct and dependable in purpose. Describe your make-up and defend your usefulness.

Questions for Inquiry

1) Discuss why some foods aren't suitable for canning.
2) Compare the disposability and recycling possibilities of metal cans and glass containers.
3) Discover the number of cans per week emptied by a family of five. Determine uses for these empty cans.
4) Discuss chemical and physical changes which cause spoilage in the canning process. What problems can these changes cause?
5) Are some foods more susceptible to canning mistakes than other foods?
6) What is the relationship between enzymes and food canning?
7) Describe what happens to the vitamin and mineral content of food in the canning process.
8) Discuss reasons for the various shapes and sizes of cans.
9) One little bunch of grapes swore to stick together and sure enough ended up in a can of juice. Tell all about their adventures from field to factory.
10) What kinds of laws protect the consumer from improper canning practices in retail stores?

11) List all of the items you can think of that are canned. Make a crossword puzzle using some of these words.
12) If a person spent his adult life working in a cannery, what might arise in the way of health and psychological hazards?
13) What factors are causing a resurgence of home canning in the U.S.?
14) Discuss: Growing and Canning Your Family's Food---Ecological or Economical?

CARPETS AND RUGS

Resources

Piedmont Floor Coverings Charlottetown Mall Mr. Tom Burton, Vice-President of Sales 375-4435	Will provide information and speak to classes.
Richard Kaye Rugs, Inc. 317 N. Tryon St. Mr. Richard Kaye 376-5848	Will answer questions and classes may visit the store which carries only original Orientals.
Hall's Incorporated 1810 E. Independence Blvd. Mr. Harold Hall 376-8501	Will be glad to answer questions and give technical advice.

An Exercise for the Student

Recently I began to incorporate a small company which will sell carpets and rugs. I want to call my store The Carpet-[illegible]gger but my buyer says no one will buy from me. Explain what he means. Do you agree with him? With the potential customer?

Questions for Inquiry

1) Discuss the advantages and disadvantages of the various carpet fabrics.
2) Compare a handhooked rug with a machine hooked rug.
3) When does a carpet need to be durable rather than beautiful? When is the opposite true?
4) Describe the system through which a Persian or Indian oriental rug is produced.
5) What properties must one consider in the purchase of a fine oriental rug?
6) Discuss the stability of pattern and color as oriental tribesmen produce rugs year after year.
7) There are bizarre and clandestine tales locked in the threads of a tightly-woven Persian rug. Unravel those threads and reweave the story of a small throw rug which lay in the hallway of the famous building of Isfahan.
8) Describe different methods of handweaving rugs.
9) How does the modern carpet industry make use of the psychological effects of color and texture?
10) In the carpet textile manufacturing plant what hazards exist for the raw materials from which carpets are made?
11) What do carpet manufacturers see in the future of floor coverings?
12) What advantages has carpeting over hardwood or tiled flooring? What disadvantages?
13) Visit an oriental rug dealer. Choose an art media through which to express the color and design of his wares.

14) In what ways have modern rugmakers managed to imitate oriental carpeting?

CEMETERIES AND FUNERAL DIRECTORS

Resources

Sharon Memorial Park and Mausoleum 5400 Old Monroe Road Mr. Paul Halberstadt 537-5011	Cannot come to the schools but will arrange tours by appointment and answer questions.
Forest Lawn Cemetery and Mausoleum 4601 Freedom Drive Mr. Brant Heffrom 392-2104	Will be happy to arrange tours and answer questions.
Alexander Funeral Home, Inc. 112 N. Irwin Avenue Mr. Z. W. Alexander 333-1167	Can speak with classes and can arrange tours of the facility with the understanding that scheduling might be difficult at times.
Hankins and Whittington 1111 East Boulevard Mr. Hankins 333-6116	Can speak with classes and can arrange tours of the facility when their schedule permits.
McEwen Funeral Service 1) 727 E. Morehead St. 2) Mint Hill Road 3) 6300 Mallard Creek Rd., Derita Miss Betty McEwen 334-6421	Can provide speakers to classes and arrange tours of any of their facilities.
City Department of Public Words Mr. Calvin Robinson, Supervisor of Cemeteries 374-2123	Will cooperate in any way.

An Exercise for the Student

Have the class list on the blackboard every word or phrase they can think of that deals with cemeteries and death. Have them then divide the words into two general categories pleasant and unpleasant words. Discuss the word connotations and why these words carry such strong feelings. Have the students evaluate these cemetery and death words for a clearer, more honest understanding. After class discussion have each student express in short essay or poetic form his feelings about these words and their significance.

Questions for Inquiry

1) Compare the theories of two types of cemeteries: gravestone markers vs. perpetual care.
2) Determine the average age of death on gravestones in the oldest cemetery in town (Old Settlers').

3) Choose ten gravestones which tell something other than the vital statistics and write couplet epitaphs.
4) Trace the history of embalming.
5) What are the pros and cons of mausoleums?
6) What makes death and burial a "hush-hush" subject?
7) Describe the funeral customs of different ethnic groups.
8) "We seem to have more reverence for death than for life". What does this statement mean? Agree or disagree.
9) How do some countries other than the U.S. take care of death and burial?
10) Are cemeteries hallowed ground?.....What happens when they are full?
11) Some people believe we should build skyscraper mausoleums. Some believe we should cremate and scatter the ashes. What is feasible for burying 200 million on U.S. soil in the next seventy years?
12) Discuss the problems of maintenance and of vandalism in the cemetery of the future.
13) Have an art class visit an old cemetery and sketch some markers and statue groups; or make rubbings on interesting markers.
14) Find a gravestone that tells something other than the vital statistics and imaginatively reconstruct that person's life.

CHEMICALS

Resources

Celanese Barclay Downs Drive Mr. Jim Allen 377-7411	Subject is so broad but Mr. Allen will help the teacher or find someone who is knowledgeable about the specific subject.
Dow Chemical Sales Office 2 Woodlawn Green Mr. Irl Trout 525-9030	Will come to schools to speak, act as a resource for questions, and provide printed materials upon request.

An Exercise for the Student

Describe how chemical compounds have assumed the roles of "goodness" and "badness" in the pharmaceutical industry. If you were researching chemicals which medical doctors would use to treat mentally and emotionally unstable patients, what special cautions would you want for the manufacturer, the doctor, the patient?

Questions for Inquiry

1) How is modern chemical research both the hero and the villain in the atom bomb story?
2) Some hallucinogenic drugs are synthetic chemical compounds. Do you think that chemical research should be government regulated? Why?
3) Explain the structure of a chemical equation.
4) Compare symbol identification in the fifteenth and sixteenth centuries with modern chemical symbols.
5) Trace the development through chemistry of some modern plastics products.
6) Why is chemical research so vital in present agricultural practice?
7) How do large companies deal with problems of chemical wastes?
8) Describe the importance of chemicals in both peacetime and wartime policing tactics.

9) Describe the synthesis of rubber through chemistry.
10) If you were a chemical which could solve the world's most serious problem, what chemical would you be? How, when, and what prompted your discovery? What problem would you solve?
11) How did chemical research revolutionize the textile industry, the automobile industry?
12) Discuss the complexity of chemical compounds.
13) Choose a product of nature which has been also synthesized. Compare and then evaluate.

CHILDREN

Resources

Day Care Kiddie Korner 651 Woodlawn Road Sylvia Eagle, Principal of 1st and 2nd Grade 523-9294	Will answer questions concerning day care services and arrange tours of their facilities.
Mecklenburg County Association for Retarded Children 301 S. Brevard Street Mrs. Aurelia Macomson, Program Director 372-7170 (Mon. - Fri.)	Has a library which is available and will provide speakers.
Alexander's Children's Center Monroe Road Mr. John Baughman 366-3712	Will speak to classes on the work of the center, emotional disturbances, and learning disabilities.
American Day Nurseries, Inc. 1700 Providence Road Miss Sandy White, Manager 3667180	Will arrange tours at any of the 3 locations, be a source of information, and provide speakers.

An Exercise for the Student

Interview at least ten adults who have children under the age of twelve. Find out the five most important things for a professional baby-sitter to consider. Compile the results of your survey and show on a bar graph how parents view babysitting and then compare findings of the class.

Questions for Inquiry

1) If you were asked to relate the one thing you remember from earliest childhood, what would you share?
2) How important is it that a child perform adequately to meet three-year-old nursery school social standards?
3) What factors seem to influence a child's understanding of his own worth?
4) Why are some politicians pressing so hard for public kindergartens?
5) What basic skills does a child need to be successful in the first grade of our public schools?

6) Describe a situation known to you in which motivation played the key role in a student's success.
7) Make ten statements in favor of structured learning. Make ten statements in favor of discovery learning. Which kind of learning appeals less to young children?
8) American society has evolved a particular attitude toward its children. Describe and then constructively criticize the situation.
9) Growth patterns are established very early in life. Talk about different types of growing and measures of maturity.
10) When and how does childhood end? Is it the same for all people?
11) Think about and discuss this statement: " It disturbs a child to learn that he is different. It pains an adult to realize he is just like everyone else."
12) Observe a small child at play for one hour. Make notes about what kind of objects he uses, what activities he seems to like, how much time he spends at each, how he interacts and communicates with other children and adults. Draw some conclusions about the behavior of the child.

CHURCHES

Resources

Temple Israel
1014 Dilworth Road
Rabbi Richard Rocklin
376-2796

Assumption Catholic
2117 Shenandoah Avenue
Father Ron McLaughlin
375-3479

Clinton Chapel A.M.E. Zion
1901 Rozzell's Ferry Road
Rev. Morgan Tann
333-9803

Myers Park Baptist
1900 Queens Road
Rev. Ed Echerd
334-7232

All of these will: Come to classes and speak; answer questions by phone; and welcome groups to their churches and temples.

An Exercise for the Student

You have been chosen to design an original symbol to hang from the ceiling of a Jewish synagogue, a Catholic sanctuary, and a Baptist church. What symbols would you design and why?

Visit as many churches as possible of any one denomination. Describe the similarities and differences among the churches. What, to you, would be an ideal church?

Conduct a sidewalk survey asking: "What is a church?" Illustrate, discuss, and evaluate your findings.

Questions for Inquiry

1) What different religions have churches in Charlotte? What are they and how were they founded?
2) Has the role of the church in America changed since the eighteenth century?
3) Discuss the rate of growth or decline in church membership in the past twenty years. What are some of the possible causes?
4) Compare the number and size of Charlotte's churches per capita with other cities. Explain your findings.
5) Draw a scatter map and locate all churches in the Charlotte area.
6) Who starts a new church? Who selects the site? By what criteria? How is a new church financed?
7) Conduct interviews with church "drop-outs". What feelings toward the church seem to prevail? What factors helped to create these attitudes?
8) List ten Do's and Don'ts for increasing church membership in today's complicated world.
9) Discuss the statement: "The church is filled with hypocrites". Agree, disagree, or explain.
10) Choose a religion different from your own and compare it in categories such as concept of God(s), approach to life after death, beginnings, ethical teachings, religious literature.
11) Investigate the relationship through history between religion and the development of music, art, and literature.
12) Discuss the charismatic movement. What effect has the movement had on organized religion and vice versa?
13) Talk to people in several age groups about the importance of the church in modern life. Are there patterns according to age, sex, community involvement?

THE CITY

Resources

Mecklenburg County Planning Commission Mr. Fred Bryant, Director of Current Planning 374-2205	Will be available for classroom discussions.
Charlotte Chamber of Commerce 222 S. Church Street Mr. Al Pruitt, Public Relations Mgr. 377-6911	Will provide film, "Discover Charlotte", and will come to classes to speak.
Housing Authority of Charlotte Mr. W. H. Droddy, Assistant Director 332-0051	Will be available for classroom talks.
Public Service and Information Dept. 600 East Trade Street Mr. Bill Guerrant 374-2395	Conducts city hall tours; will provide speakers; arrangements for the Mobile City Hall.
The 381,500 citizens of :ropolitan Charlotte ea Code 704	Usually available for interviews and talks.

An Exercise for the Student

Take the city of Charlotte in your right hand. Set it down again with new Boundaries and new border neighbors. To the east is the Dead Sea; to the south the Pyrenees Mountains; looking west, the California Redwoods; and facing north, Seoul, Korea. How might climate, commerce, defense, religion--all of life by changed?

Questions for Inquiry

1) For what reasons would a city want to grow larger? What advantages has the larger city? What disadvantages?
2) What evidence are there now in the city of Charlotte that prove there was a planning commission in 1950?
3) Do a study of poetry and songs devoted to cities throughout the world. How have cities been named? Give reasons why they have started.
4) How is the "territorial imperative" observed in the heavily populated areas of large cities?
5) How, idealistically, should a zoning board function? In practice, what has happened?
6) Each city has its own flavor and personality. Choose your favorite city and write a short autobiographical sketch.
7) Chart the organization of Charlotte's city government. How efficient is it? Do city and county services overlap or compliment one another?
8) Trace the growth of cities throughout time...have they improved? Is urbanization the answer?
9) Compare the ways in which a city dweller differs from a rural one.
10) Determine the causes for some cities becoming the centers of art and culture. And how have famous artists viewed their cities?
11) If you listed twenty words to describe Charlotte, would your words combine to write a happy story or a sad song?
12) Determine ways in which you can make Charlotte a better place to live and work.

CLOCKS

Resources

Hall Clock Ship 230 N. College Street Mr. Tommy Hall 333-0221	An horologist, he will discuss all phases of the study of time keeping.
The Clock Shop 1917 Commonwealth Avenue Mr. Floyd Wilson, Owner 334-2696	Will act as a source of information in the field of antique clocks.

The clocks in school, on building and billboards.

An Exercise for the Student

Choose five periods of time from history, beginning with cavemen and ending

with atomic clocks. Describe time-keeping methods in each of the five different periods.

Questions for Inquiry

1) Discuss some instances when a rough estimate of time will suffice and others when split-second timing is essential.
2) What natural phenomena make man aware of the passage of time?
3) Describe body clocks and how they work.
4) What rudimentary principles are found in all timepieces?
5) Talk about the smallest timepiece ever, the largest, the most unusual.
6) How can miscalculations of time affect relationships between friends, business acquaintances, nations?
7) Time consciousness sometimes seems to be a character trait--argue the pros and cons of Miss Punctual vs. Miss Better-Late-Than-Never.
8) Describe the changes in clockmaking over the last seventy-five years.
9) Listen to a Big Ben clock for a full three minutes. Record some of your thoughts and feelings. Then write a poem, compose a song, or draw a picture.
10) We all want to "beat" time in certain instances. Discuss some situations where speed is a conscious goal.
11) Discuss the theory of relativity in regard to an ant, a jet, infinity.

CLOTHING

Resources

Gentleman's Tailor 1424 E. Independence Blvd. Mr. Stan Mazier, President 332-7779	Can have entire classes visit the store.
Elizabeth Button Shop Elizabeth Avenue Juanita Autry 375-7474	Available for store visits where students can observe how basic dresses are constructed.
Ivey's-Downtown Ms. Ida Helms, Fashion Director 372-3511, ext 296	Will give slide presentation on merchandizing and all phases of fashion.
Mannequin Club Miss Mary McMillian, President 527-1410	Will give lecture and conduct workshop.

An Exercise for the Student

From the current book the students are reading have them: 1) Describe the clothing worn by the main three characters. 2) Change these characters' clothes so that the story's outcome would be altered. 3) Determine whether clothing description is important to the story; does it help them to see the characters and to really understand them?

Questions for Inquiry

1) What factors determine the weight and warmth of garments?
2) Can you judge a book by its cover when a person is the book and his clothing is the cover? Give examples which support your opinion.
3) Brainstorm a list of occupations; opposite, describe in a word or two their clothing. Now mix it all up and "dress" the worker in the wrong clothing. If a policeman got a waiter's uniform, what might happen in the course of the day?
4) Discuss clothing for ceremonial use in the U.S. and other countries.
5) How does dress reflect social conditions and social change?
6) Fashion is a multi-million dollar industry in the U.S. How do designers and manufacturers plan for next year's season, for the season five years from now?
7) Discuss fad in fashion. What impact does advertising have on trends?
8) Compare government labeling regulations on food with those on clothing. Why the differences? Is clothing as basic to life as shelter and food?
9) Design a system for grading clothing. Explain your system.
10) Write a fable, a short story, a poem about a wolf in lamb's clothing, a beaver wearing pigeon feathers, a horse clothed like a polar bear.
11) How has nature clothed trees, the earth, the sky---does there seem to be a design?
12) Pick any time or place in history and discuss how the clothes are a reflection of the age.

CLOWNS

Resources

Carolina Clowns
332 E. Trade Street
Anyone who answers will help
372-3460

Will come to schools to speak and give demonstrations of make-up and routines.

An Exercise for the Student

Get permission for your class to have a "Clown Day" with make-up, costumes, and rehearsed pantomine performances.

About Clowns

The Clown encourages us to laugh as we share with him his weaknesses, which are also ours. Clowns perform in a problem-oriented situation. The problem in itself may or may not be far-fetched, but it is always obviously more than Clown can easily handle. Clowns help us to see how large life's small problems and how small life's large problems can be.

Clowns do differ from one another. Their faces epitomize expressiveness, and physical coordination and gestures are exaggeratedly good or poor. He almost always is a lonely, uncomplex character who is dealt blows and tries to learn how to cope.

We may laugh at him, or feel sorry for him, or giggle because we see a little of ourselves in his antics....but we do experience, and that is what clowns are

COLISEUM

Resources

Coliseum
Independence Boulevard
Mr. Paul Buck
372-3600

Tours are available and will answer questions concerning operations.

An Exercise for the Student

You have been asked to recommend ten major attractions that promise to deliver sellout audiences for Charlotte's Coliseum's 1973-74 season. What ten would you choose and what guidelines did you use to make your selection?

About the Coliseum

A coliseum has certain physical characteristics and serves certain purpose. Draw up a comparison between the Roman and Charlotte coliseums, making sure to note the likenesses as well as the differences.

Coliseums are for public use and hopefully for large crowds of people. If you were lucky enough to have a house guest from 65 A.D. Rome (toga and all), how would you debate whether chariot races or hockey games are more humane, more exciting, more profitable?

If you had visited Phoenix, Arizona and seen a rodeo, how might you arrange to bring that rodeo to our coliseum? Outline step-by-step all that is involved in such a presentation.

COSMETICS

Resources

Southeastern College of Beauty Culture
La Marick
Mrs. Nell Lorick
376-7351

Will speak on and demonstrate hair and beauty care.

Mary Kay Cosmetics
4500 Town and Country Drive
Ms. Carolyn Wilson
366-8789

Will speak on skin care and make-up.

Merle Norman Cosmetic Studio
Cotswold Shopping Center
Mrs. Wanda Russell, Owner
366-0536

Will arrange classroom demonstrations.

An Exercise for the Student

Sit in a public place for half an hour and observe women's faces. Do many appear

to have little or no make-up? In your opinion what is the purpose of make-up? Do you think that most women should wear more or less make-up than they do? Ask seven people (male and female) to tell which part of the face they notice first. Discuss whether make-up adds or detracts from a person's attractiveness and report your findings.

Questions for Inquiry

1) Trace the history of cosmetics from the peak of ancient Egyptian civilization until now.
2) Discuss skin care and the use of cosmetics. Are there any conclusive studies?
3) In what ways are cosmetics like a mask?
4) There are some really precious and expensive ingredients in cosmetics. What are they and where in the world are they found?
5) For what reasons would a cosmetics firm maintain a research and development department? an advertising department? a public relations department?
6) What are some of the reasons behind a person's decision to undergo cosmetic surgery?
7) Discuss ceremonial make-up in some diverse culture. Can the painting of faces be compared in any way to cosmetic use? Why?
8) Brainstorm on the word COSMETIC. Have the students finish this essay, using as many of the words that they listed: "There is more money spent in the U.S. on make-up than is contributed to all of the churches combined. It seems to me....."
9) Do cosmetics in any way reflect a person's mood or affect how a person feels?
10) Explore the whole idea of cosmetics for men. Are men's cosmetics widely accepted?
11) How does cosmetic care in the U.S. differ from other world areas?
12) Discuss labeling and Food and Drug Administration laws which protect consumers in cosmetic use.
13) Tell why physical exercise might be called cosmetic. Indicate specific exercises for improving the appearance.....do they work?
14) Investigate ideals of beauty from different ethnic points of view.

COURTHOUSE AND COUNTY OFFICE BUILDING

County Government

The governing body of the County, the Board of Commissioners, holds its meetings in the County Office Building. This building also contains the office of the County Manager and the Board of Commissioners.

The Courts

Plans are now being made for the construction of a new multifloor Hall of Justice to be located beside the County Office Building at the corner of Fourth and McDowell Streets, but, until this much-needed building is ready for use, all three levels of trial courts of the North Carolina judicial system will continue to be held in the Court House and County Office Building. Currently, during most

weeks of the year, there are four Superior Court judges, six District Court judges, and several magistrates simultaneously presiding over sessions of court. Juries are required for most of the trials in the Superior Court and some of the trials in the District Court. In addition to the many court rooms, where the judges, jurors lawyers, litigants, witnesses and spectators meet to decide the cases brought before the courts, these buildings provide space for the offices of the judges, district attorneys, court reporters, court room clerks and counselors, as well as rooms for the selected jurors to deliberate and for prospective jurors to await selection.

Clerk Of Court

One of our more important elected officials, the Clerk of Court and his large staff have the responsibility for all of the records of the courts, which are kept in the Court House. In addition, the Clerk of Court himself serves as a judge in many kinds of proceedings, such as the certification (probating) of wills and appointment of guardians. His staff attends to a variety of matters, such as the cataloging and filing of all the criminal prosecutions and civil cases that are brought in the County, the making of lists of cases for the courts to handle each day, recording the minutes of the courts' activities and judgments of the courts, the administration of estates, competency hearings, and adoptions.

Register of Deeds

Like the Clerk of Court, the Register of Deeds is responsible for a great quantity of documents. Deeds for the sale of real estate and other documents relating to interests in property are recorded, indexed and maintained in the County Office Building. The Register of Deeds has other functions, such as the issuance of marriage licenses and the recordation of births and deaths in the County.

City-County Tax Department

Also in the County Office Building are the offices and records of the Charlotte and Mecklenburg County Tax Department. It is here that residents list their property for taxation and pay their property taxes. The ownership and value of all real estate in the County is recorded and periodically reviewed in this office.

Sheriff

Since Mecklenburg County has its own police department, the Sheriff, whose office is in the Court House, does not have general law enforcement responsibilities. The Sheriff and his deputies serve all the various papers of the courts that must be delivered to persons outside the court room itself, and each court room has a deputy sheriff present to maintain order. In addition, the Sheriff has jurisdiction over the County Jail.

Other

Other Offices and functions of Mecklenburg County located in the County Office Building include the Building Inspection Department, the Finance Department, and the Voter Registration Office.

CREATIVE ARTS

Resources

The Creative Arts Committee
Mrs. Mary Montague, President
Education Center Contact
Mr. Charles Anderson
372-8620

This committee is waging an all-out campaign to bring the creative arts into the classroom. They arrange all types of programs, from poets in residence to aesthetic workshops. Please call for information and scheduling.

CREDIT

Resources

Charlotte City Employee's Credit Union Mr. A. Hoffman, Mgr. 374-2237	Will be available for classroom talks.
Sears Southpark Mr. Jim Puckett Sears Credit Manager 364-5073	Will be glad to discuss different phases of credit in the classroom.
Bank Americard NCNB Don Carmichael, Director of Marketing 374-5320	Will provide speakers and information.
Master Charge First Union Mr. David C. Darby, Director of Auditing	Will arrange tours and supply speakers and information on credit card operation.

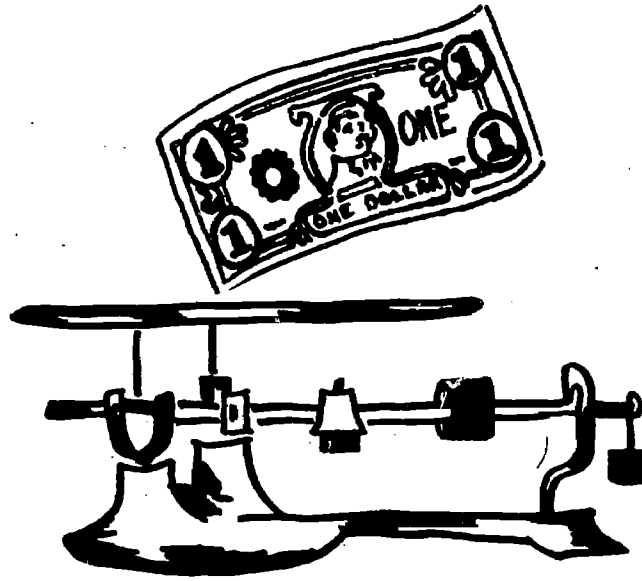
An Exercise for the Student

Approach an adult with the serious intent of borrowing enough money to purchase your "dream item" (not to exceed in price your ability to pay). Make your case convincing by explaining why it is to his advantage to honor your credit.

Questions for Inquiry

1) In what ways is credit based upon a "gentleman's agreement"?
2) What specific process occurs when an individual negates a bank loan?
3) Describe how a loan is to the advantage of both the borrower and the lender.
4) How do government regulations protect all parties in a credit transaction?
5) How is a credit card like a dollar bill? How are they different?
6) Compare safety, ease and convenience of travel when you use credit cards rather than actual money.

7) Good credit is equal to a man's good name. How is this statement true? False?
8) How do unstable financial conditions affect the small-loan business?
9) Explain how a young person in his first job goes about establishing credit.
10) Should a person have unfortunate circumstances and become unable to meet his credit responsibilities, what recourse does he have?
11) Discuss some of the lending and collection problems in today's credit system.
12) How do nations establish credit and borrow from one another?
13) Explain how a pawnbroker functions in a credit system.
14) What has been the position of moneylenders in history?
15) Creative people over the years have experienced the pinch of financial pressure and low earning power. Pretending to be a struggling young artist, writer, or wanderer, convince a rich benefactor (one of your classmantes) to extend credit for your living expenses for the next five years. Be sure to determine ALL your expenses, suggest terms, give your pathetic story. You MUST have the money. How might the borrower feel in this situation? What about the benefactor?



DAIRYING

Resources

Hunter Jersey Farms Shopton Road Mr. John Treadaway, Sales Mgr. 523-2905	Will provide information, speakers, and tours.
Pet Dairy Division, Pet Inc. 3300 Plaza Road Mr. W. B. Moser, Assistant Mgr. or Mr. Jesse Jones, Mgr. 334-2863	Will provide speakers, materials and tours.

About Dairying

Modern dairy cattle live a life of pampered ease. Old Bessie who lived in a cold New England barn would shake her head in disbelief at the clean, modern stall, the scientific feeding methods, the consideration and care which her great-grandchildren receive.

On the other hand, there is something rather meaningful, almost intimate about a farmer and his son coming into a small barn with soothing, gentle words, a three-legged stool and a shiny tin pail.

Then milking machines invaded the barn and things would never be the same again. 1) Say, just for a moment though, you wanted to go back to the old system. Determine a family per-cow ratio for dairy products. 2) How has the advent of mechanization revolutionized the dairy industry? 3) Do cattle think? About what? 4) Compare the vitamin and mineral content of the nomadic grass-fed cattles' milk with the modern dairy cow's. 5) How have scientific breeding practices improved upon the ordinary cow? What has animal size to do with milk production? 6) Graph the daily production of one milk cow, a goat, and a yak. Can you give reasons for the differences? 7) Are oleos and powdered milk substitutes as good as the real thing? Why do some states, such as Wisconsin, prohibit the sale of dairy substitutes? 8) Why the sacredness of the cow to the followers of Hinduism? The importance of the cow cult to the ancient Minoans? The Masai in Africa? 9) Compare different mythological stories which deal with cows (i.e. Europe). 10) Is milk really as good for you as everyone claims?

DANCE

Resources

Grose School of Dancing 1409 Pierson Drive Harry or Jean Grose 537-1913	Can give information, speak to classes, and demonstrate dances.

Leonard Clemmer School of Ballet and Gymnastics 4712 Park Road Mr. Leonard Clemmer 523-5940	More than happy to give demonstrations to students at any time.
Gay Porter's Workshop of the Dance 1959 East 7th St. Ms. Gay Porter 376-8136	Will be willing to speak on all aspects of the dance and to demonstrate to classes.

An Exercise for the Student

Improvise a dance routine to go with your favorite record. Using the same music, see how many different styles of dance you can use to blend rhythm and body movement in a pleasant way.

About Dancing

Dancing is a form of language. It is a studied and deliberate body talk and through dance it is possible to communicate the whole gamut of human emotions and experiences. This response to rhythm is an innate characteristic of man and is epitomized as the body chooses its mode and method and loses itself in that union.

Most people can enjoy ballroom or square dancing for relaxation and pleasure; become inspired from the spectacle of full ballet; or get a kick out of a Highland Fling. A detailed investigation reveals, however, that the dance is historically religious and ritual. Through spiritual inspiration, man tells his story through the dance. No motion is wasted. Is this true of the way you dance? 1) What is it that we enjoy about dancing? 2) Has the dance always been a means of self-expression? 3) Why is dance called the universal art? 4) Which seems more basic to you, rhythm or dance? 5) How does the training of a professional dancer compare with that of a professional athlete? 6) Discuss national dance companies and government subsidies of the art. 7) What are the different skills necessary for dancing Swan Lake, choreographing a Broadway musical, or performing a classic Thai dance?

DATA PROCESSING AND COMPUTERS

Resources

IBM 4601 Park Road Mr. John Fletcher, Administrations Mgr. 525-8120	Have tours, speakers, and literature on computers and data processing and are anxious to take them into the schools.
Honeywell Abbey Building Ms. Marti Zemas or Mr. Bobo Wince 525-4485	Have a tape cassette audio-visual show which one person is assigned just to take to the schools.

First Computer Services, Inc.
Jefferson First Union Plaza
Mr. Charles A. Lockwood, Vice-Pres.
374-6170

Willing to co-operate with teachers in any way.

Questions for Inquiry

1) If you could feed information into a computer and receive in return a sure-solution to your most troublesome problem, what would you inquire about?
2) How important is the initial information given a computer? Do computers reason, filter and discard some information? Do computers"think"?
3) Design a cartoon or comic-strip illustrating your most far-fetched notions about computers.
4) Write a short story entitled "Do not fold, staple, spindle, or mutilate ME or any punch card".
5) Choose any one of the categories listed in this directory and show how computers have been used.
6) Compare the smallest electronic computer with the human brain as to efficiency, speed, wear and tear.
7) What technological advances specifically prompted development of the computer?
8) Are computers assuming the thinking responsibilities of man? Imagine and describe what changes might take place in man as computers become more and more sophisticated. Is there anything computers CAN'T do?
9) How do you get a computer to do what you want it to do?
10) What effects has this instant knowledge provided by computers had upon our culture?
11) After computers, then what technological revolution?
12) If our civilization were to be completely destroyed except for one computer full of information on three separate subjects, what information would you want to leave for a space traveler to discover? Explain your answer.

DEPARTMENT STORES

Resources

Ivey's
Tryon Street
Mrs. Kay Hastings, Training Director
372-3511

Will speak to classes on all aspects of retailing. Will also schedule some tours.

Belk's
Tryon Street
Mrs. Louise Gary , Training Director
375-8811

Will speak to classes and provide materials on all phases of retailing.

Family Dollar Store
4720 Rozzell's Ferry Road
Mr. Lewis Levine, Executive President
394-2101

Can speak to classes on the management of retail stores.

An Exercise for the Student

The year is 2000 A.D. Bulldozers are clearing Brazilian jungle land. Modern construction methods make it possible for a whole city of 250,000 people to be built in one month. The Asiatic continent is so overcrowded that people are fighting for reservations on supersonic jets that will bring them to a new life in this new city. You have three weeks in which to formulate working plans for the city's largest department store. What could and should this store of the future be? What would be the needs of these new citizens you would have to supply? Establish criteria for short and long term stock items.

Questions for Inquiry

1) Compare specific advantages of department stores over specialty shops.
2) Describe the effects of population shifts on the department store concept.
3) Consider a department store in Paris, France. How much comparison is feasible between Europe and America in retailing? What economic factors affect such a comparison? How do different lifestyles and demands show up in a downtown department store?
4) Explain the connection between socio-economic spending and certain department store locations.
5) Why, in this age of mobility, must the retailer even more than ever come to the customer?
6) How do different departments within a single store compare as to profit and loss?
7) What training has the average employee in customer relations? Is the customer usually right or not?
8) How important is policy on returning goods? Do stores sustain a loss in this area? Why?
9) In order of importance discuss the five most inviting factors about a successful department store.
10) Describe the different jobs and services performed by department store employees.
11) How is profit and loss determined? What profit margins are there?
12) How do tariffs and taxes affect department store trade?
13) Are there international department store brokerages?
14) How has the increase in foreign manufacturing made retail sales more difficult?
15) Where do non-saleable items end up? How do department stores safeguard against "white elephants"?
16) Discuss some important department stores of the world and reasons for their successes.
17) Compare the advertisement campaigns of several stores and determine what tone or mood each is trying to convey.

DOCTORS AND DENTISTS

Resources

County Medical Society Auxilliary Mrs. Paul O'Brien, President 334-5401 or Mrs. William Tracy, Health Careers Chmn. 5-6386	These ladies can conduct hospital tours, help initiate health career clubs, and put you in touch with doctors.

County Health Department
Dental Health Division
Dr. Sherrill
374-2166

Will come to schools and bring films, slides, and materials on dental hygiene.

Mecklenburg County Medical Society
1012 Kings Drive
Dr. David S. Citron, President
376-3688 (Mrs. Virginia Arey will take your requests)

Will arrange speakers to come to classes. Please allow enough notice time.

An Exercise for the Student

Many countries of the world depend heavily upon socialized medicine and dentistry. Imagine you are trying to convince the most promising young resident in your graduating class to move to India and preactice medicine with you. What arguments would you use? You will not be in private practice but will be working in a government-owned clinic. What risks would you be taking? List some possible rewards. How might your life and practice compare with that of a clinician in the U.S.?

Questions for Inquiry

1) Compare a day in the life of a modern doctor in general practice with his nineteenth century counterpart.
2) What are the advantages of specialization in medicine? For the doctor? For the patient? Are there disadvantages?
3) How do various areas of our country, the world compare in number of doctors per capita? What deductions can be made?
4) What are some reasons for the present status of doctors when at one time in history they were only barbers?
5) Discover some "home remedies" that have been proved scientifically sound.
6) Research some famous medical discoveries and the chain reaction of knowledge they have generated.
7) How does reality stack up against Drs. Kildare and Welby on television?
8) Collect stories of courage which doctors have shown in times of stress (i.e. natural disasters, war, Dr. Tom Dooley).
9) What problems are created when a doctor cares too much or too little? Discuss the doctor's attitude toward the sacredness of human life.
10) How would you solve some of the world's medical and peridontal problems if you had access to all of modern skills and resources?

DRAMA

Resources

Children's Theater
1017 E. Morehead St.
Mr. Allison Roulston, Director
376-5745

Offers production assistance for school plays and aids in the development of student talent.

CPCC Department of Drama
Mr. Tom Vance, Director
372-2590

Welcomes classes to watch dress rehearsals and any other aspect of play production.

Golden Circle Theater Mint Museum of Art Ms. Dorothy Masterson, Director 377-2015 (afternoons)	Will answer questions and provide classroom speakers. Classes may also come to dress rehearsals.
Ira Aldridge Dramatic Guild Johnson C. Smith University Mrs. E. M. Baylor, Director 372-0370 Ext. 268	Will gladly answer questions and speak to classes particularly on African culture and drama.

An Exercise for the Student

1) Divide the class into groups of five or six students each. Let each group select a way to dramatically express a particular idea. Have each group write, costume, advertise, and enact a scenario for the class.

2) List on separate slip of paper one-line acting situations. Have the student choose one (he won't know what is written on it) and do an impromptu pantomime.

In an evaluation session discuss gains in confidence, ability in the voiced and unvoiced acting, the feelings evoked in the actor and in the class.

Questions for Inquiry

1) Discuss each type of theater and its particular appeal.
2) How much, in dramatic acting, depends upon innate ability and how much on just plain hard work?
3) In what ways does acting before a camera differ from acting before a live audience?
4) Create a bulletin board illustrating major highlights in theater history.
5) Draw conclusions about what constitutes good theater. What does timelessness mean in a dramatic story or play?
6) Are there certain personality traits that make for a successful dramatic career? Why?
7) Discuss audience involvement in live theater.
8) What are the successes and failures of television as a dramatic vehicle?
9) What elements are present in a particular society to enable its people to seek dramatic production for entertainment?
10) Choose events from real life and combine them to create a dramatic scene. Turn mediocrity into excitement through dramatic principles.
11) Have you ever experienced a feeling of disappointment upon learning how a thing worked? Write a poem suggesting that you loved the theater more before you went backstage!
12) After a study of theater architecture, design the perfect one.
13) "All the world's a stage..." we are actors all. Agree or disagree. How does real life become drama or is drama the reality?
14) Where are national theaters active and how do they thrive?
15) Choose a play and create the scenery for it.
16) What therapeutic values can be had from group role playing?
17) Is Broadway dying? What might be some implications if it does?
18) Collect sayings and terminology that apply to the stage.
19) Encourage drama by supporting your school productions.

DRUG ABUSE AND ALCOHOLISM

Resources

Open House 710 E. Morehead St. Mike Graves, Director 372-4357	Will come to classes to speak on drugs and the attitudes of the young toward drugs.
Drug Education Center 1402 E. Morehead St. Anyone who answers	Can speak to classes on motivation for drug use and family involvement.
Alcoholism Information Center 101 Billingsley Rd. Mr. Joseph Kellerman or Mr. Joseph Emmett 376-7447	Will furnish speakers, audio-visual materials, research pamphlets, and offer counseling and interviewing services.
Alcoholics Anonymous Mr. Cecil Drinnen 334-6244	Willing to co-operate in any way.

An Exercise for the Student

Have the entire class brainstorm the word DRUG. List all of these responses on a chart. Have the students then think about each word, one at a time, and make one positive and one negative comment about each. Then classify the words, according to association, either more bad than good or more good than bad. Ask them to draw at least five basic conclusions about drugs from this brief surface analysis.

Questions for Inquiry

1) Compare marijuana and alcohol in these three areas: physical and psychological effects of overindulgence or addiction; physical addiction; social and legal acceptability.
2) Describe the positive and not-so-positive results of amphetamine use.
3) How responsible is a government for controlling drug abuse among its citizens?
4) Drugs have been around for a long time. Are they abused more now than before? What social conditions contribute to this fact?
5) Evaluate conclusions held by the general public about the drug culture.
6) Using a 1950 copy of Encyclopedia Britannica, look up twenty terms now associated with drugs and drug abuse. Can you state implications about drug importance then and now?
7) In your estimation what causes drug abuse? What exactly is meant by drug abuse?
8) Why do some people claim to be more creative under the influence of drugs? Explain.
9) Compile a report on the major drug categories—their effects, components, use, and misuse.
10) Describe some non-drug experiences that give people a "natural high".
11) What are some common misconceptions concerning drug abuse and the people who abuse them?
12) What controls do we have on drugs? What legislation should we have?

ECOLOGY

Resources

Mecklenburg County Environmental Health Department Mr. T. W. Bivens, Director 374-2620	Gives talks and shows slides on air and water pollution and engineering.
Carolinas Environment Study Group Mrs. John Hall, Vice-President 536-1481	Will find people in various energy fields to speak. Are mostly concerned with safety of nuclear power.
Metrolina Environmental Concern Association (MECA) Mr. Roy Alexander, President 535-2697	Are concerned with the protection of all aspects of environment - will send slides, speakers, and materials upon request.

An Exercise for the Student

Determine what seems to you to be THE most serious threat to man's environment. Improvise a playlet which shows the relationship between a lush green garden and the sinister agent bent on the garden's destruction.

Questions for Inquiry

1) What exactly is environment?
2) Explain the importance of environment on the growth and development of flora and fauna.
3) Environment is physical, social, and psychological. How does poor environment in one of these areas impinge on the other areas in human life?
4) Imagine what you consider to be THE environment for you. Can each person create and maintain his own private world?
5) In what ways has increased use of technology caused a deterioration of man's environment? How has technology conversely improved man's environment?
6) Give some constructive steps that you as an individual can take toward the preservation of environment.
7) Illustrate the disappearance of animal species and discuss the possibility that ecological carelessness has contributed to this process.
8) Explain why man has a special responsibility to protect the plant and animal kingdoms. How is man's survival directly dependent upon lower forms of life?
9) Define and discuss the various types of pollution. How have industry and government responded to the growing problem?
10) If you set out to systematically destroy the natural environment, what three particular environmental factors would you attack? How would you go about implementing your plan?
11) If you were able to repair one area of the environment that is the most basic to life, what area would that be and how would you reverse the destructive forces now at work?
12) Run noise level studies at various busy intersections of the city. Make bar graphs which compare levels of pollution of various cities.

ELECTRICITY

Resources

Duke Power Company Mrs. Angelina S. Howard, Supervisor Public Information 374-8138	Has a wealth of materials on electricity and related subjects. They will send to the schools speakers, films and printed material for all grade levels. Tours may also be arranged.
Westinghouse Electric Corporation Shopton Road Mr. Tom Christensen, Public Relations 588-1220	Can arrange tours and provide speakers on a limited basis.

Exercise for the Student

Imagine you are Ready Kilowatt. You are to prepare a speech and presentation showing how you are constantly in motion. Explain your source of energy and its dissipation. How do you jump an arc? Compare your own physical makeup and properties with those of a droplet of natural gas. What motivates each of you, sustains you? What future has each of you?

Questions for Inquiry

1) How and when did man begin to make use of electricity?
2) What advantages has electricity over other power sources?
3) What creates positive and negative power?
4) What does it mean to <u>own</u> a power company? How can one own what he cannot see? Why are moncpolies allowed power companies?
5) Suppose when you turn off your bedside light tonight it would not light up again for three days-your light, your refrigerator, your home-the whole city. Imagine a three day complete electric blackout. How would your life be changed or inconvenienced? What serious problems would be posed for hospitals, factories, food producers, etc.? What psychologically might happen to a city in darkness?
6) Make a chart illustrating the value of electricity in your home. What is the most important use of electricity to you? What electrical items could you most easily give up? Which do you hold most dear?
7) Discuss the sources of power and energy that might replace electricity in a real crisis.
8) Can you hear electricity? Feel it? Explain.
9) Discuss how the arts have made creative use of electricity.
10) Explain why some power companies seek to build nuclear plants. What advantages, disadvantages might the building of one bring?
11) Investigate how the construction of huge dams here and abroad have affected the standards of living of the surrounding areas.
12) Draw comparison graphs of electric potential and present use by some of the major world powers.

EMPLOYMENT

Resources

Charlotte Association for Employment Agencies	Will provide speakers on the work of employment agencies.

or

Management Recruiters Inc.
Baugh Building
Mr. Gilbert Ketchan, President
535-5220

Manpower, Inc. Cecil Street Mr. Lee Royall 372-0240	Can provide speakers on employment in general or on temporary employment, on a variety of subjects as teacher desires.

An Exercise for the Student

Have students find out all they can about how to prepare for a job interview, what goes on during an interview, and what an employer looks for in that face-to-face meeting. Then have two students act out this interview using all they have learned.

Questions for Inquiry

1) Why and when did employment agencies begin?
2) What valuable advantages do they provide both for businesses and for individuals?
3) Describe what working for an employment agency is like. What background and training is needed to go into this business? What interests and personal qualities? Who pays the fees? Describe the ideal employment agent.
4) If you are applying to an agency for work, what impression would you want to make at your first interview? How would you go about it? What information should you carry with you?
5) Can you apply to more than one agency at a time?
6) Find out about the U. S. Employment Service and the services provided by its different branches.
7) Get some statistics on current national employment.
8) Describe the relationships between employment and the economy.
9) How are employment waves or problems tied to governmental decisions and policies? To scientific research and advance? To business trends? To inflation and counter-inflationary measures? Give examples.
10) What are some present trends in the employment picture? What shortages are there? Where is there surplus manpower? What special problems exist for those with certain skills?
11) In the fast-moving future will people need to be more adaptable? Will work be more flexible? Will education and training philosophies need some changes? Will people need to shift from traditional ideas of doing one thing all their lives? Is there already evidence of this beginning?

ENGINEERING

Resources

Professional Engineers of North Carolina Mr. Byron A. Hamrick, President 376-4754	Will act as a clearing point for all aspects of engineering and will put the teacher in touch with someone to answer her particular needs.
Charlotte Engineers Club Mr. W. J. Wortman, President 374-4941	Has a committee of 25 engineers who devote time to high school visitations.

An Exercise for the Student

Choose one among the five major branches of engineering. From that field choose an engineering speciality. Then select a finished product (a dam, nuclear reactor, motor, synthetic fiber) and in a creative way illustrate how engineering takes the raw materials and returns finished products.

Questions for Inquiry

1) Analyze the major differences between the tools available for engineering feats in 2000 B.C. and tools available to the modern engineer.
2) Which field of engineering is the most modern? The oldest? Why is this true?
3) Discuss some of the engineering marvels of the ancient and modern worlds.
4) Choose a building in downtown Charlotte and analyze the structure; carefully note the different types of engineering represented and its most distinctive engineering features.
5) What engineering know-how was prerequisite to the construction of the Eiffel Tower, Roman Aqueducts, St. Peter's basilica?
6) Discover some of the outstanding feats of engineering in nature (i.e. the Grand Canyon, Victoria Falls)
7) What would it be like to be working on an engineering project you knew would be used for destructive ends?
8) Which field of engineering seems to be the least exhausted? In other words, for the future, what engineering direction seems imperative? Why?
9) How do engineering advances in mining, gas, and oil production compare in importance with those in civil engineering?
10) Chart in the various interdependencies of the many fields of engineering.
11) Take one of the major fields of engineering and eliminate its accomplishments. What would be missing from our life?
12) Refute or justify the following statement: "We have discovered and developed enough. Let's stop now before it's too late."

ENGINES AND MACHINES

Resources

Cummins Carolinas Inc. 3700 North Interstate 85 Mr. W. Lee Bryant, Training Coordinator 596-7690	Willing to answer questions, give talks, and show slides about diesel engines.

Souther Machine Products
1033 Cater Avenue
Mr. Joe Spencer or Mr. William Teague
333-0165

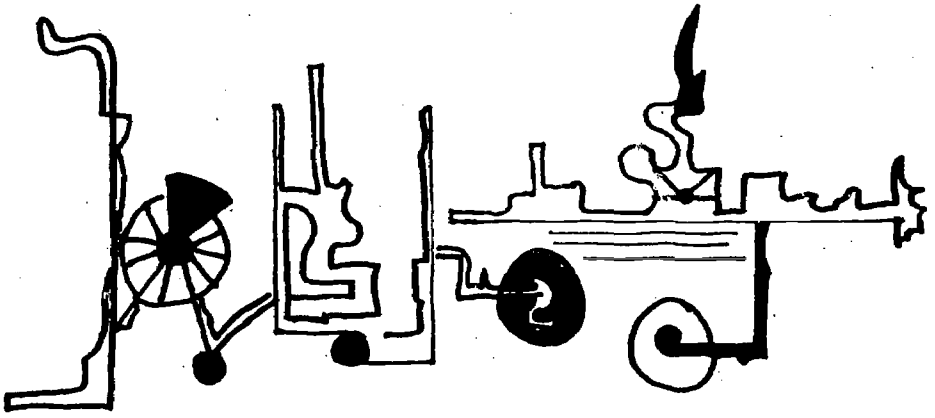
Tours of their plant can be arranged.

An Exercise for the Student

Collect the simplest of discarded items and use them to construct a simple machine. Project and illustrate how your machine might be used to accomplish a specific task.

Questions for Inquiry

1) Explain the relationship between energy and machines.
2) What does it mean to have a mechanical mind?
3) Why are some geographical areas more oriented to machine production and factories than others?
4) Describe some basic machine parts. Of what basic materials are most machines built?
5) Draw comparisons between engines and machines.
6) Describe the increasing complexity of combining several machines or machine parts.
7) How have machines elevated human life and lifestyles?
8) What problems do machines pose for ecology?
9) Are machines responsible for ours becoming a "throw-away" society?
10) Describe the impact of foreign machine manufacture on the American economic system.
11) Pursue the idea that form follows function and that a machine itself can be a work of art.
12) What will be some machines and engines of the future?
13) In making machines what are the implications of precision-tooling of interchangeable parts?
14) What are some human characteristics which have been affected because of the advent of the machine age? Are we just becoming mechanical men?



FARMS

Resources

Mecklenburg County Farm Agent Mr. Glenn Cartner 374-2561	Can locate a farm for classes to visit at various times of the year. Can also provide teachers with much information.
Hunter Jersey Farms Shopton Road Mrs. Harvey Hunter 523-2905	Can arrange tours of the farm.
Meadowbrook Farm and Stables, Inc. 3601 Matthews-Pineville Road Mrs. Whalen 847-4529	Tour of stable available and of special interest to elementary school age. Art classes welcome.
Thompson Orphange Farm Margaret Wallace Road Miss Connie Lowrance 536-0375	Can arrange tours of the farm.

An Exercise for the Student

Do a scale model of a Southern cotton plantation in the 1850's.

Questions for Inquiry

1) What factors must a farmer consider in deciding what crops to plant?
2) What are the major hazards that a farmer faces?
3) What percentage of the earth's acreage is cultivated farm land? What percentage for grazing livestock? Draw a pie graph of the earth illustrating all you can about farming and agriculture.
4) What are the reasons for diversified farming?
5) Discuss the importation and exportation of farm products by the U. S. How does this trading affect food prices for the American consumer?
6) How does the federal government regulate agri-business? What problems might arise if there were no government regulations? How else might these problems be solved without government intervention?
7) How are farm subsidies? How do they work?
8) What local agencies and benefits are available to the small farmer?
9) What part has farming played in the discovery of new lands and the conquering of settled lands?
10) When and why did man begin to farm?
11) In the history of farming, what technological advances have helped to revolutionize methods?
13) Do the countries with more farm laborers also produce larger crops? Explain.
14) How do farmers depend on chemistry? How has the ecological furor over pesticides affected the economics of farming?
15) Discuss organic farming.

16) In the past few years there has been great interest on the part of many young people in the "back-to-earth" movement. The success of books like "The Whole Earth Catalogue", the growth of communes, the emphasis on growing one's own food, spinning, weaving, dyeing and sewing one's own clothes, making one's own pottery -- all bear evidence to this trend. Try to discover some of the factors in our modern technological society which have brought about this reaction.
17) Farming as a business is one of the most difficult and yet most rewarding of all occupations. What is the fascination about farming that attracts a man to a job demanding long hours seven days a week? What traits would you find in a man choosing this job?
18) Show how a child brought up on a farm might learn more about life -- from birth to death, and rebirth -- than a child brought up in a city suburb.

FIRE DEPARTMENT

Resources

Charlotte Fire Department: Tours are welcomed at all fire stations. Call the officer in charge of the station you want to visit. The Fire Prevention Bureau will come to the school and give talks on fire prevention. Observation of the training station on Monroe Road is also welcomed.

About the Fire Department

Firemen, like soldiers, are ever on call and trained to become a mobile unit at the clang of a bell. Some firemen are paid professionals, others are volunteers. In either case the fireman works under crisis conditions, sometimes with inadequate equipment, to protect the life and property of the community.

Questions for Inquiry

1) What are the major types of fires and the way in which each is fought?
2) What are the chemical reactions and principles of physics of a burning fire?
3) What happens in the city fire department when the alarm bell rings?
4) What different ways does a volunteer unit respond to an alarm?
5) Over the centuries, what myths and legends have been associated with fire?
6) One of the most tragic of all aspects of fire is that it can often be prevented. What appeared to be the causes of some of history's most devastating fires?
7) Describe some of the efforts being made to direct the energy created by fire into light.
8) What laws protect a community against deliberate arson? What are the penalties for arson? What psychological theories try to explain the motivation of an arsonist?
9) What equipment should a first-rate fire fighting unit have? What are the forerunners of this equipment?
10) Look at a map of Charlotte and note the locations of our various fire stations Is there any area which does NOT have adequate protection? In your opinion are permanent fire stations logically sound, or should there be roving mobile units which would be able to respond quicker to a call for help?
11) What should you do if a fire breaks out in your home? In a shopping center or building you are in? Discuss the whole concept of panic.

12) Give as many suggestions as you can of ways in which fires could be prevented.
13) How tall is the hook and ladder equipment we have in Charlotte? What happens when the fire is above the reach of the ladder?
14) What new techniques in medicine have been developed to hasten the recovery of fire victims? What lifesaving skills must your fireman also be trained in?
15) Does a forest fire spread like a fire in a house? What factors determine the direction, intensity, and duration of fires?

FLOWERS

Resources

Todd's Flowers and Gifts 1800 Independence Boulevard East Mr. J. A. Todd, Jr. 332-5167	Can arrange observation in the design room or answer any questions.
Scholtz Greenhouses 1900 Floral Avenue Mr. Al Scholtz 377-5411	Can arrange tours of the greenhouses.
Coleman Nursery, Garden Center, and Gift Shop 3600 North Sharon Amity Road Miss Barbara Harding 375-7978	Can arrange tours except during very busy seasons. Will also give talks on nursery work, growing plants, ecology, plants and weather changes, etc.
Charlotte Council of Garden Clubs, Inc. Mrs. Olin Richardson, President 366-2356	Will locate speakers to fit individual teachers' needs.

An Exercise for the Student

Plant two seeds of any type of flower you wish. Put one seed in each pot. Everyday give Pot A lots of attention and affection. Talk to it, move it around the room with you, consider it a friend. Pot B, just let it sit there. Water it but do little else. After a reasonable length of time, are you able to conclude plants, like people, respond to kindness?

Questions for Inquiry

1) Trace and illustrate the life cycle of a plant. How does a flowering plant fit into the over-all life cycle of plants and animals?
2) What are some common and uncommon uses of flowers?
3) How many species of flowering plants are to be found in the U. S.? In North Carolina? In your backyard? How many of these are wild and how many are raised commercially?
4) Make a list of ten flowers and then decide to which famous world personality you would present each as a gift.
5) How have grafting and transplanting become so specialized as to become an art?

6) Discuss some of the ways in which the study of plants and flowers has aided in the study of genetics.
7) Choose a variety of flowers and then try to recreate their original geographical location.
8) How are flower seeds gathered for commercial sale? If you were to plant one hundred seeds, how many plants might result? What are bedding plants? How do florists manage to meet the demand for flowers at certain peak seasons?
9) Research the legends behind the names of certain flowers, the symbolic significance of particular flowers (especially when they accompany religious personalities in art).
10) Become more aware of floral patterns in fabric, packaging and labeling, shopping arcades and stores, on television.
11) Try your hand at maintaining a terrarium or designing a floral arrangement in the Ikebana style.
12) List colors that have been named after flowers and then with paints try to match the color with the flower.
13) What are the connections between flowers and women's perfume?
14) Collect various varieties of flowers. Then blindfold a member of the class and have them make inferences about flowers by feel and smell.
15) Create a story in which the characters are flowers.
16) Make an anthology of Flowers in Poetry and discuss the emotion each attempts to create. Or a collection of flowers represented on stamps. Or flowers in music.
17) Investigate the artificial flower industry and its products. Why do you think artificial flowers have become so popular, especially here in the U.S.?

FOOD PRODUCTS

Resources

Armour and Company 2000 Thrift Road Mr. Paul Gibson, Superintendent Mr. John Rose, Personnel Manager 334-4703	Can arrange tours with two weeks notice; also speakers on either sales or production if given advance notice.
Lance, Inc. Pineville Road Mr. Zean Jamison, Personnel Director 525-1421	Will provide speakers on food industry and information.
Ruth's Salads 2122 Thrift Road Mr. Allen Maxwell, President 332-4106	Will provide speakers and answer questions.
Speas Company 2921 North Tryon Street Mr. Dennis Stoefer, Sales Manager 332-4134	Will provide speakers and information.

Swinson's Products, Inc.
205 West Stonewall Street
Mrs. Edna Blackwelder
332-2502

Will give talks about food industry and provide information.

An Exercise for the Student

"Fully 55% of all items now sold in supermarkets did not exist 10 years ago. And of the products available then, 42% have faded away altogether" - Future Shock

During this school year begin to make a list of all of the new products you find on the shelves of your neighborhood supermarket and of products that are no longer there. Categorize the items you have collected and then discuss the implications of our "Throw Away Society".

Questions for Inquiry

1) What factors influence which foods are eaten in a particular region of the world? What seem to you to be some unusual basic diets?
2) Does body chemistry in any way dictate a person's choice of foods?
3) Food is shipped from all over the world to the U. S. On one large world map show the natural ingredients we import and on another the food products we export.
4) Research the new area of food products which is being developed for wilderness backpackers and our astronauts.
5) What particular foods are more or less native to certain areas of the U. S.? How do they reflect the cultural backgrounds of the people?
6) How did a late 19th century breakthrough in preserving, condensing, and transporting food eventually bring a millionaire's delight to many palates?
7) Explain how experience in the disassembling of hogs would prepare the way for Henry Ford's new way of assembling automobiles.
8) While ice-fishing in Labrador, when the temperature was 20 below, Clarence Birdseye pulled in a fish and it dropped beside the hole and quickly froze solid. Investigate how the use of Birdseye's quick freezing process has been applied to many types of food.
9) What are some recent examples of large quantities of unsatisfactory food products reaching grocers' shelves? Is the consumer just at the mercy of the food supplier and reliant only on good faith or are there ways to tell if food is unsafe? What might be the impact upon the supplier if it were flashed on national television that one of his products was deemed unsafe?
10) Describe the machinery and processes which lie between a newly planted orange seedling and a Christmas ambrosia, a grain of corn in the farmer's bin and a hot piece of cornbread, or an oyster in an Atlantic Ocean bed and smoked oysters on an hors d'oeurve tray.
11) Which of the following statements makes the most sense to you and why:
    1. Her wealth and technology demand of the U. S. that she work to solve the world's food shortage problems.
    2. Natural processes will take care of food production and the population explosion. There's nothing we can do anyway.
12) Throughout history and the world today what various items were considered delicacies (i.e. Haggis, boiled octopus suckers, dandelion salad, seaweed candies)?

13) What foods have generally been considered "staples"? What does the daily diet of a Mexican, Russian, or Nigerian laborer consist of?
14) Conduct a school interview of the types of products students find at home in their kitchens. Do your findings reflect what the supermarkets stock?

FURNITURE MANUFACTURING

Resources

The Chair Place Highway 74 East Mr. Clinton Seegars, Mgr. 847-9163	Welcomes any inquiries for speakers and or tours.
Shaw Manufacturing Co. 5001 Pineville Rd. Mr. Tom Lowder 523-4212	Two hour tours can be arranged.
TruForm Furniture Co. 100 Rodney St. Southland Industrial Park Mr. John Mills, Gen. Mgr. or Mr. Rober McMahon 889-7259	Tours of the plant are available.
Kroehler Manufacturing Co. 3412 Monroe Rd. Mr. J. W. Callahan, Plant Mgr. 372-2410	Offer tours for small groups of senior high students.
McSwain's Reproductions 8608 Lawyer's Rd. Mrs. E. B. McSwain 545-4519	Shop is too small for tours but small groups can visit the showroom. Can also provide speaker on the art of reproducing antiques.

An Exercise for the Student

Pretend you are the dining room table in Henry VIII's castle, the cigar stand in Churchill's home, the throne of King Minos, the tatami mat of Hirohito, or the campaign cot of Napoleon.....What stories would you have to tell?

Questions for Inquiry

1) Look up famous paintings in which a piece of furniture is used to tell a story or convey a meaning.
2) Through the ages what many different materials have been used in the making of furniture? What correlations between materials and geography can then be made?
3) Compare the furniture you may find in a traditional Japanese palace, a

Williamsburg home, a hut in Taiwan. What needs and aesthetic demands of the inhabitants dictate the style and quality of the furniture?

4) Higher standards of living and more competent transportation methods have made it possible for people in other areas of the world to buy furniture "Made in the U.S.A." Homes the world over and styles of living are becoming more and more the same. Do you think this is a favorable trend?
5) What is the most popular style of furniture sold in the Southeastern United States? In California? In New England? What various reasons can you give for this regional preference?
6) Choose three "most favorite" pieces of furniture in your home. Think carefully and then give reasons as to why these were your choices.
7) Develop a longitudinal study of the concept that form follows function in the history of furniture manufacture.
8) Furniture design is akin to architecture and to woodworking. What principles guide the furniture designer who is working with the latest modern products?
9) Try your hand at creating a new piece of furniture from discarded bits of paraphernalia.
10) Take a particular period of history and show how the furniture reflects the art, mood, politics and life style of the times.
11) Give as many reasons as you can for a piece of furniture becoming work of art rather than just something to sit on or eat from.
12) What criteria do you use to determine fine workmanship in furniture?

GARBAGE AND TRASH COLLECTION

Resources

Department of Sanitation and Public Works Department 400 Otts Street Mr. Joel Moore Mr. Louis Cookley 376-2673	Can answer questions or help with projects.
Sanitary Container Service 5516 Rozzells Ferry Road Mr. Dave Marcus, Manager 394-1353	Speakers will be provided.

An Exercise for the Student

Make an on-foot survey of your own neighborhood. Identify garbage and trash problems. What seems to be the source of specific disposal problems? What recommendations would you make if neighborhood beautification were your responsibility?

Questions for Inquiry

1) What if no improvements are made in the disposing of garbage and trash; if we continue with present methods what might the future hold for the United States? For some of the other countries?

2) How does one differentiate between trash and garbage?
3) What special considerations does each require?
4) Describe research on recycling. Discuss which basic materials can be recycled.
5) Are there feasible, economic ways to recycle? Talk about them.
6) Strive for a minimum of space and waste--what could you do with a railroad car load of empty tin cans? 500,000 pounds of broken glass? A ton of scrap food?
7) Discuss landfills--what are they, where located, who owns them? What happens when a landfill is full?
8) Compare present-day garbage and trash disposal with disposal in the 1920's.
9) Describe the relationship between sanitation department morale, attitude and the efficiency of garbage and trash collection.
10) Is garbage ugly? Can garbage be beautiful?
11) Compare private ownership versus public ownership of sanitation services. What problems and possibilities are inherent in each system? Toward which are we headed?

GOVERNMENT, CITY AND COUNTY

City Hall The Switchboard will arrange 374-2395	Lecture; tour; mock council meeting. Tour of council chambers, Mayor's office (when he is out). Can also supply speakers to classes.
County Office Building Marilyn Bradbury, Public Service Information Officer for the County 374-2475	Lecture; tour of County Commissioners Meeting Room, Elections Office with instructions on using voting machines. Can also supply speakers.
Citizens Action Line 333-3131 or 374-2040	Call to register complaints or obtain information.

An Exercise for the Student

Choose a current issue with which the Charlotte City Council is involved and conduct a man-on-the-street survey to determine public opinion. Discuss how public opinion affects public issues.

Questions for Inquiry

1) Compare the structures and functions of Charlotte City Government and Mecklenburg County Government.
2) Why is government on the local level necessary?
3) Explain the shifts and balances of power between city government and state government.
4) Would you prefer to be an elected or an appointed local government official? Which job would you like? Why?
5) Discuss some instances in which a city needing legal services might call on its law department.

6) Describe the various ways in which a city accrues income. Is that income taxable? Explain.
7) In what ways do city and county governments work together?
8) Over a period of fifty years, how much change occurs and why?
9) What motives prompt men and women to seek public office?
10) Explain the notion that public officials are public property. Evaluate.
11) How efficient is local government? How efficient can it be?
12) Evaluate the status of Charlotte City Government against a city of comparable size and income.
13) How does local government reflect some of the trends of national government in the U. S.?
14) Compare the government of Charlotte-Mecklenburg with that of London, or Paris. What could we borrow from the governments of other cities to improve our own?

GROCERS

Harris-Teeter Super Markets, Inc. 1017 Chesapeak Drive Mr. Carroll Teeter, Director of Advertising 392-7471	Will provide speakers, tours and information.
N.C. Food Dealers Association Everett Suddreth, Executive Secretary One Charlottetown Center 334-3935	Lecture; tour. Can coordinate tours of warehouses, speakers on food retailing and distributions.
7-Eleven Stores 2024 East 7th Street Mr. Thomas Chancy Mr. Danny Sotir Mr. Bob Marlowe 372-3427	Lecture. Can give talks to groups about all aspects of retailing.
A&P Customer Relations 2024 Thrift Road Mr. John Whitfield 333-3161	Can supply someone to talk with classes and arrange tour of stores and warehouses.

An Exercise for the Student

Hypnotize yourself! You are very tired, very sleepy. Let your true self come out. You are a pepperoni pizza in the frozen food section at the supermarket. Talk about what's important to you. Do you like the temperature? How about your age? Do you like your associates? Whom do you envy? Talk about your past--your childhood, infancy. What is there to you, really and how did you get it all together?

Questions for Inquiry

1) Compare the advantages and disadvantages of opening and operating an independent grocery store versus managing a store for a large chain.
2) What factors determine how items are placed on the shelves?

3) Explain how the individual store determines which items and what quantity to order.
4) Discuss the growth of supermarkets in the United States, the world.
5) Describe your vision of a grocery in the year 2000 A.D.
6) How does a large chain determine the size, location and special services of a new grocery?
7) Why would a person want to be a retail grocer?
8) Discuss competition among retail chain grocery stores.
9) What factors determine profit and loss margin?
10) How does market research analysis help the food manufacturer?
11) What determines retail grocery prices?
12) Discuss the popularity of convenience food stores.
13) How did the convenience stores come up with such a "super seller" (SLURPEE)?
14) You are in Benares, India, and must buy groceries. What types of food items would you be able to buy? How many and what kinds of stores would you have to go to? Would they bag your groceries? Would you pay a fixed price or barter for them? How would you ascertain the cleanliness and freshness of grocery items?
15) Discuss how supermarkets in the U.S. have continued the tradition of the village market as friendly gathering places for housewives to exchange news and greetings.

GUNS

Resources

Charlotte Rifle and Pistol Club Mr. Jack Plante 375-7987 or 364-7030	Club sponsors teams and matches. Can give information and provide speakers.

The nature of a gun lies in the hand which holds it. Guns were once a very basic means of providing food for a man's family. Yet they can separate men - one man the protector, one the plunderer...Guns have reflected man's nature, an extension of his own pride... A gun, too, can be, as in the past, a source of relaxation and pleasure.

For whatever its use - provision, protection, pleasure - the gun insists upon being respected. It imposes on the gun-handler certain responsibilities... Could it be that the height of civilization is reached when a weapon for destruction is used by friends in friendship?

HAIR

Resources

Roffler Representative of North Carolina 227 South Church Street Mr. Costas Melissaris 334-9554	Can arrange for speakers and demonstrations on men's hair styling and care.
Charlotte Hairdressers Association Mrs. Robert Bruce, President 536-6967 - Day 537-3705 - Night	Can arrange for speakers and demonstrations by members of the association.

An Exercise for the Student

Determine hairstyles for different decades in recent U. S. history. Collect magazine pictures, or in a way of your choosing illustrate popular styles. Reflect upon this question: "Are social conditions reflected in the hairstyles of particular eras? Is this true for both men and women?" Formulate syllogistic statements relating hairstyles and social conditions.

Questions for Inquiry

1) What are some famous stories in which hair is an important factor (i.e. Samson and Delilah, Rapunzel)? Write your own story in which hair - or lack of it - is a key factor.
2) The styling of hair can be an artistic achievement. After investigation of such creations, from the monumental coiffs of Marie Antoinette to the intricate braidings of some African tribes, discuss the pros and cons of hairstyling being art.
3) Compute the amount of money citizens of the U. S. spend on hair preparations and care. How does this figure compare with what is spent on education? Welfare?
4) Trace how hair became a symbol of freedom and self-assertion for youth in the sixties.
5) How do you get your hair cut or styled in India? Argentina? The islands of Micronesia?
6) Look at a variety of beauty magazines and make some generalizations as to how the "In Look" is pushed and promoted.
7) Make a chart showing when beards have been fashionable for men in the U. S. Does there seem to be a regular pattern? Can you determine any reasons for these patterns?
8) Find out about the use of wigs through history, from the women of ancient Egypt to Louis XIV of France to a high school student in 1970.
9) What do individual hairstyles really say about the person?
10) Examine the relationship between the length of women's hair and economic or political trends.
11) Have each student design a hairstyle and construct it with yarn or other materials. Then have them improvise a play in which each assumes a role inspired by his own hairstyle. Afterwards discuss how wigs or hairstyles allow us to be different people.

HEALTH SERVICES

Resources

Red Cross Miss Ruth Lehman 376-1661	Already do a lot in the schools (clubs, volunteer services, etc.) and want to cooperate in any way.
Career and Personal Counseling Service 1830 Queens Road Miss Adele Shields 376-4086	Will furnish classroom speakers and answer questions.

Family and Children's Service 301 S. Brevard Street James McQuiston, Family Life Education Specialist or Angus Simpson 372-7170	Will gladly speak to classes.
Mental Health Association Mrs. Merrill Witten, Executive Director 372-7170	Will provide speakers, films, and literature.
Charlotte Prevention of Blindness Society, Inc. C. George Henderson 372-3720	Will cooperate in any way.

An Exercise for the Student

Set up a display of all the items you can collect that have to do with mental and physical health. From the objects collected, what statements can be made about health? What questions arise? Write an essay by finishing this statement: "The most pressing health problem in today's world is _____." In your opinion what steps must be taken toward solving this problem?

Questions for Inquiry

1) How can a country with the wealth of the U.S. still have pockets of poverty? What should be the position of the government, of the individual, in attempting to eradicate the problems of subsistent living conditions?
2) What are some of the more common, less severe, mental and emotional problems? Why might a person be reluctant to seek help for a troubled emotional state?
3) Historically, what culturally held ideas have made the work of mental health professionals even more difficult?
4) How has the increased pressure of technology brought about new problems of mental health (i.e. the assembly line ennui)?
5) Research some famous people of history who have had health or emotional problems and their attempts to overcome their problems.
6) What are some of the tools with which counselors and psychologists work?
7) What guidelines might a counselor follow in an initial interview with a new patient? Why must a counselor be impartial and non-committal in his attitude?
8) What qualities do you feel a good counselor or psychologist should have?
9) What efforts are being done in Charlotte to aid those with serious health handicaps?
10) Under what conditions should one person help another who is injured? When shouldn't help be given until a qualified person has arrived on the scene?
11) How do community health departments locate those who very definitely do need their services but are reluctant to come forward?

HISTORY

Resources

Mecklenburg Historical Association 200 Wendover Road Dr. D.M. Glasgow 366-2453 - Home	Will provide speakers and materials. They welcome new members.
Tar Heel Junior Historical Society Charlotte Contact: Miss Ann Feiber Education Center 372-8620, S.A.T Office	Offers: Slides and films, mobile museum of history, junior and senior high school clubs, and publications
Institue for Urban Affairs UNCC Dr. Norman Schul, Director 597-2307	Speakers provided on historical preservation in cities.
Charlotte-Mecklenburg Historical Properties Commission City: 374-2395 County: 374-2475	Possibility of speakers being provided on historical preservation in C-M.

An Exercise for the Student

History is what today becomes. Have your class compile a history of the past year's events, as they have seen and experienced it. What criteria should be used for including and excluding events which some deem irrelevant? Why must one be careful to record events without bias? Are any historical accounts truly unbiased?

Questions for Inquiry

1) What are some famous paintings which record historical events? Why are art works of all kins so vital in the investigation and establishment of historical statements?
2) Which of the following statements seems truest to you: "The history of the world is but the biography of great men". "History...is the record of what one age finds worthy of note in another." "Human history is in essence a history of ideas."
3) Choose a favorite historical character. On paper list all of the qualifications that made it "great". Compare this list with the characteristics of some of your school leaders. What value systems do they share?
4) Investigate why change, though continuous, fails to occur at a prescribed rate from one culture to another, or one generation to another.
5) Using what you know of man's past, what might you envision for the future of yourself, your city, your country?
6) What are some of the ways local associations have aided in the quest for historical knowledge?
7) After you have concluded the study of a unit of history, use yourself as a primary source to test some of your findings...to prove the statement "The past is just the present in microcosm".
8) Research the recent history of one of the great world powers and attempt to forecast the directions that country may take in the next decade.
9) The historical novel combines fact and fantasy. After reading one or more of these novels, comment on the authors' faithfulness (or lack of it) to real life detail.

10) Create a bulletin board which shows the variety of primary and secondary sources an historian uses in his trade.
11) Living history is a fascinating subject (i.e. Foxfire). Tape interviews of the elderly people in your community area so as to preserve some of its history.
12) Use the local daily newspaper as a textbook to contemporary affairs.
13) Do we all need a "sense of history" to be aware and therefore better citizens?

HOSPITALS

Resources

Presbyterian Hospital 200 Hawthorne Lane Mr. J. R. Hudson, Vice-President 377-4411	Tours can be arranged.
Charlotte Memorial Hospital Mr. James Green, Director of Staff Development & Community Relations 373-2413 or	Information only will be provided. Tours have been discontinued.
Ms. Lucille Dunaway, Director of Volunteers 373-2413	Candy Stripers will gladly accept new volunteers, 14 years or older.

An Exercise for the Student

Today's newspaper headline reads "Local Hospital to add New Children's Wing." You, the hospital administrator, must submit recommendations to your board of trustees for the construction of this new children's facility. What would your directive include? How would you try to offset problems of obsolescence when it opens?

About Hospitals

A large hospital is a miniature city within itself. Any concern that deals with the life and death of individuals is a concern of the hospital. Because the particular job of a hospital is the health and care of its patients, each area of service is specialized and is staffed by a dedicated corp of doctors, orderlies, dieticians, technicians, nurses who daily function to prolong and increase the quality of life.

Perhaps you would like to consider the problems and importances of:
1) Communications within a large hospital.
2) Special equipment used in various departments.
3) The psychological effects of extended hospital stays.
4) Emergency room facilities.
5) The logistics of feeding hundreds of patients on various diets.
6) The spiraling costs, the scarcity of rooms.
7) The impact of Medicare.
8) How the hospital works in a crisis situation.

HOMES AND APARTMENTS

Resources

Charlotte Board of Realtors 225 South McDowell Street Ed Terry 372-0911	Will present programs on homes and apartments -- building, living, renting, buying.
The Ervin Company Fred Choate 523-2387	Will provide names of several people in the company who will answer questions and cooperate with teachers in planning programs in this area.
Planning Commission 701 East Trade Street Bob Hightower 374-2205	Will work with teachers in arranging for speakers or programs on current and long-range city planning.
Crouch Brothers - House Movers 6916 Statesville Mr. M. F. Crouch, Owner, or Mr. E. D. Stevens 596-0066	Welcome on site visits, but depends upon when a house will be moved.
John Crosland Company P. O. Box 11231 Mr. John George, Sales Manager 523-8111	Will provide tours, speakers, and information.
Arrowood Mobile Homes John Price Road Mr. Rudy Lewis, Manager 588-0132	Will provide tours, speakers and information.

An Exercise for the Student

A little over twenty years ago a brand new city was planned and built in the northwestern part of India. Named Chandigarh, it was designed not by an Indian, but by a famous European architect--Le Corbusier. Try to find out about this city--along what styles buildings were constructed, what the needs of the people themselves were, how the cultural difference between the designer and the inhabitants affected the success of the city, what unusual uses some of the Western-oriented features have been given, and what the inhabitants themselves have to say about their city today. An excellent article on this may be found in the June, 1972 issue of Smithsonian magazine.

Questions for Inquiry

1) What are some of the differences you would expect to find between apartment living and home living? Why and how might a person's type of dwelling affect him psychologically? How would the dwelling influence its inhabitants' way of living?

2) Does high-density living have effects on human personality?
3) Is the percentage of apartment dwellers expected to grow or decline? Why?
4) How is the location of apartment dwellings determined?
5) What are the responsibilities of apartment dwellers? Owners?
6) What laws govern apartment dwellers? Owners?
7) What impact can apartment complexes have on the surrounding area, especially when it is residential? On drainage? View? Schools? Traffic? Aesthetics? Do developers study this impact voluntarily? Do laws require it? Should they?
8) What is public housing? How is the location of public housing determined? What are the trends in public housing in Charlotte?
9) Describe a typical $12,000 home in Charlotte. A $25,000 home. A $50,000 home. A $100,000 home. How much can location affect the cost in Charlotte? Age? How have the average home dweller's needs and demands changed in the last twenty-five to fifty years?
10) How greatly are the prices of homes increasing? Will this trend continue indefinitely?
11) Try to find out what types of single and multi-unit dwellings are common in other specific countries, such as China, Japan, India, Africa, Russia, Denmark, England, Australia, Brazil, Peru, Israel. In each case, find out whether most people live in single or multi-unit dwellings.
12) How do cultural patterns and styles of living affect the planning of satisfactory dwellings? Learn about some of the different needs created by cultures unlike ours.
13) Do you think a modern U. S. apartment complex or home should be satisfying to anyone anywhere? Why or why not?
14) Should there be more variety in dwellings in our own country to accommodate a wider scope of lifestyles, or is the variety we already have sufficient? Explain.

HOTELS AND MOTELS

Resources

Manger Motor Inn 631 North Tryon Street Abel Girault, General Manager 332-3121	Will provide speakers and arrange tours of their inn.
Cavalier Inn 426 North Tryon Street Mr. W. K. Simons, General Manager 333-0331	Will provide speakers and arrange tours of their hotel.
Red Carpet Inn 615 East Morehead Street 373-6340	A complete tour of the facilities is available.
White House Inn 237 West Trade Street Mr. Greg Anderson, Assistant Manager 332-1121	Complete tour of the facilities is available.

An Exercise for the Student

Sit in a hotel or motel lobby and observe all the busy activity. Imagine where all of the guests have come from, their means of travel, their reasons for being in Charlotte and for choosing this particular inn. With the notes from your observations, construct a short playlet in which some of the real people you have watched become characters in fiction.

Questions for Inquiry

1) Between the time he enters to register and the time he checks out to leave, the inn guest may call upon many people and services. Do a job profile of each employee and his duties.
2) Compare location sites of hotels and motels in Charlotte now with what existed in 1960. Where would be some prime locations for future inn sites in Charlotte?
3) How do inns plan for "off seasons"?
4) In what ways has the increase in camping appreciably affected the motel business in the U. S.?
5) How widespread have motels become over the world? Are they merely an American answer to mobility?
6) Discover some of the unique types of hotels other countries offer the traveler (i.e. hostels, Japanese riyokans, country inns of England).
7) What is the average life span of a motel room? How do they ever manage to keep all those bedrooms clean?
8) What are some of the various gimmicks used to get guests and then to keep them?
9) What major services does a hotel offer over a motel (and vice versa)?
10) Since early times travelers have needed a place to rest and refresh. Construct an early history of the hotel concept.
11) Apply some of your textbook math to some everyday problems an inn manager encounters.
12) What basic architectural and interior decorating guidelines do most hotels follow?
13) Categorize the many types of inns and give a brief summary of each.
14) Pretend you are composing an advertisement to be placed in a newspaper or magazine to bring tourists to your inn, or take any area of the world and make it come alive to a visitor from abroad.
15) Fancy hotels were once, and are still, a status symbol of sorts. The haunts of the jet set (past and present) make a great story: from the George V in Paris, the Raffles in Singapore, to Saratoga Springs in the U. S.

ICE CREAM

Resources

Freddie Freeze Company Andrew Pappas 334-0143	Can provide a demonstration truck and a speaker to classes.
Sealtest Foods 500 Dalton Avenue Mr. Jim Smith 377-3421	Can provide speakers to discuss all aspects of ice cream making. Also has a booklet for children about ice cream.

An Exercise for the Student

Bring an old hand-crank ice cream freezer to class and make some delicious home-made ice cream. Let the students measure, turn the crank, and eat! Better still, invite the parents to eat, too.

Questions for Inquiry

1) Why is ice cream such a nourishing treat?
2) When and where did people first eat ice cream, as far as we know? What kinds of people enjoyed it while it was such a rarity?
3) When was it first eaten in the United States?
4) What development made it possible for ice cream to become a popular treat available to many? What further progress popularized it still more?
5) What were early ice cream parlors like? How have they changed?
6) Visit Spoon's and ask about their ice cream parlor then and now.
7) When was the ice cream cone thought up? The popsicle?
8) Find out how to make ice cream at home, either with an ice cream freezer or in the refrigerator. The new electric freezers are handy, but what advantages can you think of for the hand-crank kind?
9) How is arithmetic used in the production of ice cream?
10) Learn what these terms mean: Spumone, Neapolitan, frozen custard, mellorine, sherbet, parfait, bisque, French custard.
11) What artistic and decorative touches can be given to ice cream?
12) The cool sweetness of ice cream on a hot day can be pure poetry--write a poem about it if you can!

INSURANCE

Resources

Charlotte Association of Life Underwriters Mr. Delbert Turner 372-1820	Can answer questions and provide speakers to classes.
Kemper Insurance Company 1229 Greenwood Cliff Mr. Robert Mauldin 372-7150	Can provide speakers on various kinds of insurance.
Society of Chartered Property Casualty Underwriters (Central-Carolinas) Independent Insurance Agents of Charlotte-Mecklenburg Mr. Ernest F. Young, Jr. 372-3703	Can answer questions and provide someone to talk about property and casualty insurance.
Allstate Insurance Company University Research Park Mr. Ed Morgan, Director of Public Affairs 525-0281	Can arrange tours of new building, provide speakers to classes. Also has a wealth of information and films on all phases of highway safety.

An Exercise for the Student

Otto Driver is driving his new sports car; two of his best friends, Jo and Bill Rider are with him. Just as Otto turns into his driveway, his brakes (which he had noticed earlier were getting weak) give way, causing him to slam into the utility room of his home. The house catches fire and is destroyed; the auto is demolished; Joe Rider is killed, and Bill Rider is seriously injured.

Assume that all ordinary kinds of insurance are in effect, and tell what they are. To whom will Otto, Bill, and Joe's estate turn for advice? What procedures will be followed? What services will different insurance companies render? Might there be overlaps? Disputes? How may legal situations arise in connection with the insurance here? How would the situation be different if there were no insurance coverage? If a "no-fault" law were in effect?

Questions for Inquiry

1) In simple, everyday terms, just what is insurance?
2) The idea of insurance started long ago. Even in Biblical times and ancient codes of law there are occasional indications of primitive types of insurance. What were some forerunners of insurance in Rome? The Middle Ages? Where and how did modern types of insurance begin? When and with what developments did insurers start using scientific, mathematical, and statistical principles?
3) For what reasons--other than death benefits to loved ones--do people buy life insurance? How can it help the insured while he is still alive?
4) Is there a time of life when life insurance is most important to have? Why? Is there a time of life when it is least expensive? Why?
5) Can you buy life insurance on someone else's life?
6) How does health insurance work?
7) What kinds of insurance are available for automobiles? How much and what kinds are required by North Carolina law? What changes would proposed "no-fault" laws make?
8) What kinds of insurance can be important to homeowners and property owners?
9) What kinds of things do people insure besides lives, homes, and autos?
10) Are there some types of insurance that are very difficult to obtain?
11) Lloyd's of London is known as a company that will insure anything. Find some of the most interesting and unusual policies it has issued. What kind of rates have people paid on these policies?
12) Can you insure something for more than it's worth?
13) When do insurance companies refuse to sell life insurance to someone? Casualty insurance? Liability insurance?
14) Which insurance professionals work out the rates to charge for policies? What data do they use?
15) What do insurance companies do with the money people pay in as premiums? How do they help boost the economy? Provide employment?
16) How much does the insurance business fluctuate with the state of the economy?
17) What relationships exist between insurance and the stock market?
18) How many kinds of careers are involved in the insurance business? What is there for someone interested in mathematics? Computers? Medical problems? Selling? Mediating between people? Investigation?
19) There are many types of insurance provided by the government--Social Security, Medicare, FHA, FDIC, Serviceman's Insurance, etc. Learn about these. Discuss the pros and cons of government insurance. What effects does it have on the private insurance business?

INTERIOR DESIGN

Resources

American Institute of Interior Design Mr. G. Edwin Starr, President 376-6461	Can provide speakers to classes and show illustrations of interiors. Possibility of tour of facility.
Edward Springs Interiors, Inc. 1236-E Morehead Street Mr. Ed Springs 376-6461	Can provide speakers and programs to classes.
John Miller and Associates, Inc. 1517 Central Avenue John Miller 376-5260	Can provide information and speakers. Can also arrange tours for groups of 10-15 people.
Kale Office Outfitters Ltd. 217 South Tryon Street Mr. Charles Cummings 377-2641	Can talk to classes about office interior design.

An Exercise for the Student

As a group, design a room--perhaps a large student lounge. First, decide together what overall mood, atmosphere, or theme you want to achieve so that all work will have this aim. Group the students according to their interests: some would draw the scale model of the room and make scale cutouts to represent the furniture; there would be a furniture group to choose and arrange the furniture; another group would work with color; another with materials; still another with lighting. There could also be an accounting committee to set up a budget and keep track of costs. Cooperation and compromise should be valuable by-products, because this sort of project would require continuous communication and co-ordination among the groups.

Questions of Inquiry

1) Find all the relationships you can among interior design and other subjects in this book--Art, Architecture, Furniture, Paper (Decorative), Plastics, Printing, Textiles, Upholstery.
2) What are the different kinds of interiors that designers can specialize in?
3) What careers are available in interior design? How important to this business is the ability to communicate? To get along with people? To sell? To have artistic talent?
4) What are some of the ways a designer might use each of these to create a desired effect: Color? Shapes? Patterns? Textures? Scale? Accessories? Lines?
5) What are some of the ways you might go about making a room look masculine? Feminine? Peaceful? Stimulating?
6) What changes have such developments as television and stereo equipment made in interior designing?
7) How important is function to interior design? Is interior design simply usefulness made beautiful?

8) Talk about trends, fads, and fashions in interior decoration. Who decides these things? Are designs designed to change often?
9) At what point in a person's fortunes or in the fortunes of a culture does professional interior design become important?
10) Study some trends in fashion in different times and places: ancient Japan, Victorian England, America in the thirties, etc. Did these fashions extend to everyone? Do fashions today? How do they vary with geographic location, economic status, and ethnic influence?
11) How have handcrafts played a big part in interior decoration through the years? (Afghans, bedspreads, quilts, rugs, embroidery, pottery, etc.) How prominent is their role today? How does its importance vary in different age groups and in various locales?
12) How have utensils and necessities been used decoratively?
13) How are living things used in decor?
14) Probably as far back as we could see in history people have been interested in dressing up their surroundings; in making them comfortable, personal, and appealing. What might a cave dweller have done to decorate the cave? What touches have nomads given their tents? Tropical islanders their huts? Is there any decoration in an igloo? How have the few who have seen them described the caves of the Tasaday? How did Colonial Americans, both the average and the wealthy, decorate their homes? Frontiersmen? Puritans? How do people in temporary quarters try to make them seem like home?
15) What do you think is the force behind this universal trait? Love of beauty? Need for familiarity? Instinct to put a personal mark on things? A combination?
16) How has this trait extended to people's places of business? How big a percentage of professional interior design today is the design of businesses?
17) Find out something about the interior design planned for Charlotte's newest large buildings.
18) How long has interior designing been an organized business?
19) What is its status as a business in other countries?
20) Do you have any especially cherished mementos or belongings that would be a part of your surroundings, wherever you moved? How might they set the tone of a room or an office?
21) Report on a few of the most interesting facts you can learn about the ways contemporary people in cultures entirely different from ours decorate their surroundings.
22) What do interiors tell about people and their interests and values?

INTERPRETERS

Resources

Interpreter's Service of the
American Association of University Women
(A voluntary service of the AAUW)
Miss Janet McGill, President
AAUW
2901 Hillsdale Avenue
Charlotte, N. C. 28209

This service is available any hour of the day or night. Contacts can be made by calling Travelers Aid, Chamber of Commerce, the Public Library, or the chairman. There are forty languages and one hundred and sixty interpreters. The services include translating, interpreting, helping families to locate, hospitality, transportation, contacts with local churches, and in any way helping our visitors from foreign lands to feel at home in Charlotte, North Carolina.

INVESTIGATION

(See also Police)

Resources

Federal Bureau of Investigation Mr. Glen Scott 372-5485	Will answer questions and provide speakers to classes.
Burns International Security Services, Inc. 139 South Kings Drive James B. Stegall Frank Clark 372-0606	Will provide information and speakers to classes.
Security Dogs of Charlotte, Inc. 4824 Old Dowd Road Mr. Dusty Foiles 394-3355	Have a demonstration area and welcome tours. (Industrial attack dogs would be demonstrated to older students only.) Can also speak to classes.

An Exercise for the Student

Read a famous detective story--an Ellery Queen a Sherlock Holmes, for instance. Afterwards, chart the clues that, one by one, like pieces of a puzzle, form a logical and complete picture. How important to each one was keen observation? Careful listening? What thought processes were at work to form connections and reach conclusions? How important was general knowledge? Try charting a set of clues to fit an imaginary situation. You might even try your hand at turning them into a story of your own.

Questions for Inquiry

1) How much of the super-sleuth image that we get from novels and television is real? How does the typical day of an average investigator compare with the life described in fiction? How much routine is there? How much glamour? How much danger?
2) There are many levels of investigation. Who are our Federal investigators? Foreign intelligence agents? State investigators? Local investigators? Define their jurisdictions. Do they ever overlap?
3) How do private investigators work? How are their jobs different from those in governmental agencies? What powers or [illegible]

8) What has the development of the transistor meant to investigation? What dangers does it present to the privacy of the individual?
9) What are the purposes of, and the limits to, government investigation (a) in a free society? (b) in a dictatorship?
10) To what degree, if any, do the ends justify the means in investigation?
11) What are the rights of American citizens in resisting investigation?
12) What laws regulate the methods and extent of investigation? Why are they needed?
13) If you could "get" a guilty person only by breaking the rules of a democracy, would you do it? Why?
14) "Where there is freedom there will always be room for wrongdoing and the possibility of danger." Explain this.
15) What are some of the trade secrets of detectives?
16) Explore the mystery story in literature, from Agatha Christie to Shakespeare!
17) Find out about methods and philosophies of sleuthing around the world.

INVESTMENTS

Resources

Bache and Company American Building Mr. Bob Stovall 376-8861	Can arrange for speakers to classes and provide information.
Interstate Securities Corporation 221 South Tryon Street Al Ofstrom 372-9000	Can speak to classes about investing and about what stocks and bonds will do.
Merrill Lynch Pierce Fenner & Smith Inc. Jefferson First Union Plaza Mr. Frank Black, Account Executive 372-8950	Will hold lectures in his office, can arrange tours, can speak in the classroom, and can provide basic booklet on the stock market. Also willing to answer questions.

An Exercise for the Student

Learn to read the financial section of the newspaper. Allot yourself a certain amount of imaginery money to "buy" shares of stock from at least two companies. Watch the daily progress of your stocks. At the end of a certain time period, report how much you have made or lost on your investment. Discuss any opinions on why your stock did well or poorly. (For a more extensive venture, enlarge to include selling, trading, and a class Stock Exchange).

Questions for Inquiry

3) What is common stock? Preferred stock? The advantages and disadvantages of each?
4) What are the advantages and disadvantages of the U. S. Savings Bonds? Municipal bonds?
5) What ways are there to buy stocks and bonds?
6) What do stock certificates look like? Bonds?
7) What is a stock exchange? How does it work, and why is it needed?
8) How does a company get listed on the various exchanges? What laws, regulations and requirements must it first satisfy? Why are these restrictions necessary?
9) What government agencies police the stock market?
10) Can you buy stock on credit? What is this called? Who sets limits on the percentage of credit allowed on a stock purchase? Why are limitations needed? What happened when credit was virtually unlimited?
11) What things influence the rise and fall of stocks?
12) What is a bull market? A bear market?
13) Learn about some popular trends in stocks, present and past.
14) What are blue-chip stocks?
15) A person who bought a small amount of IBM stock when it was new and untried has become wealthy by now. Make some guesses on what the IBM of the future may be.
16) How can you become a stockbroker? What other related careers are there?
17) How do investment clubs and mutual funds benefit people with limited amounts of money to invest?
18) Are there personality traits that make some people opposed to buying stock? Nervous about it? Overly eager?
19) How do stock tickers combine computer and telegraph principles for almost instant communication, nationwide?
20) Do other countries operate stock exchanges like ours?
21) How is investment at the heart of the free enterprise system?
22) Describe economic systems preferred by some other countries.

JAILS

Resources

Charlotte-Mecklenburg Jail — Tours and information available.
Dan McShane, Jail Administrator
or
Miss Jones
374-2534

An Exercise for the Student

Do a comparative study of jails and punishments in (1) specific times and places in history or (2) in specified contemporary cultures of the world.

Questions for Inquiry

1) How have jails changed over the years? How have American prisons changed? What has brought about the changes?
2) How do American jails and penalties today compare with jails and penalties in other countries?
3) Within the United States, how does "prison policy" vary from state to state or city to city? Within the military services?
4) What are some of the special considerations that must go into the design of a jail?
5) What are the good and bad features of our City-County Jail?
6) What is it like to get arrested?
7) When might jailing someone really help? When might it hurt in the long run?
8) What are some alternatives to our present system?
9) What specific types of jails are there just in North Carolina? How do their purposes and programs differ? Their conditions?
10) Who, other than criminals, are sometimes put into jails? Why? What remedies are being found? How much more extensive was this practice in the past?
11) What do you think it would be like to be a jailer or warden? What would working conditions be like? How do you think you would be affected psychologically? What opportunities would there be to contribute to society? How heavy are the responsibilities?
12) What is a "shock tour?" Is it a good idea?
13) Should judges be personally familiar with the conditions of prisons? Why?
14) How do women's prisons differ from men's?
15) What and where are some of the leading experiments today in more rehabilitative types of penal systems?
16) How does work release operate? What are its advantages and disadvantages?
17) Find out about some well-known wardens of this century, their philosophies and approaches to punishment.
18) Learn about some famous examples of rehabilitated lives.

JANITORIAL SERVICES

Resources

Commercial Home-Institutional Industrial Cleaning Service 532 Bowman Road Mr. Thomas Washington, Owner 525-4553	Will provide speakers and information.
Latimer's House and Commercial [illegible]	Will provide information and speakers.

An Exercise for the Student

A class could do a study of the exact jobs involved in the upkeep of its school and the cost of cleaning and maintaining the building - including the repairs and clean-up necessitated by vandalism. Perhaps class members could even do one of the jobs once to get an idea of the effort it takes.

Questions for Inquiry

1) What various kinds of contracting does a janitorial service do? How is an estimate on the cost determined?
2) What is it like to keep a large office building or shopping center clean?
3) Are janitorial services replacing maids in our region? In other areas of the U. S.?
4) How does a janitorial company keep up with new cleaning products and techniques?
5) What safety procedures are necessary for a janitorial worker?
6) Do workers in the company specialize in different kinds of jobs?
7) What are the problems - or advantages - of hiring people to work at night?
8) Exactly what has to be done to clean a large building? How is the work mapped out for greatest efficiency?
9) How do the company's people get security clearance?
10) What are some secrets of the art of getting things clean?
11) How long has this type of organized business been in existence?
12) What were the earliest known janitorial services like, and where were they?
13) How has the business changed with the changing times?
14) How is it different - or what takes its place - in radically different cultures?
15) What opinions and emotions do those in the janitorial business develop about human beings in general as civilized people? How are they affected psychologically by what they see of human nature?
16) Does someone in this business tend to become a neater person himself, or not?

JEWELS

Resources

Garibaldi & Bruns Mr. John Barton 375-3331	Will visit classes.
O'Malley's Jewelers, Inc. Mr. William O'Malley 375-7628	Will answer questions.
[illegible]	[illegible]

An Exercise for the Student

Match several specific precious stones with the areas of the world in which they are found. About each kind, find (1) what is involved in mining, (2) how value is determined and how great the range of values, and (3) uses other than as ornaments or investments. Done in chart form with artwork and clippings, this could be an attractive classroom display.

Questions for Inquiry

1) What makes precious stones and metals precious?
2) How significant is jewelry as a form of investment?
3) In what parts of the world do people invest their wealth largely in this way? Why? In what times of history? Why?
4) Why is jewelry design an art? Who are the anonymous artists who create it?
5) How are some of the precious stones worked from their rough natural state into perfect shining gems?
6) What will an X-ray or a spectroscope reveal about a precious stone?
7) What is a gemologist, and what standards must one meet?
8) What are the requirements for maintaining a certified laboratory?
9) How does one become a jeweler?
10) Why do women wear paste jewelry?
11) How is stolen jewelry traced?
12) How are synthetic gems made? How closely do they resemble the real thing? How are they used?
13) What place do jewels, both real and synthetic, have in industry?
14) Describe some of the jewelry trends or fads in history.
15) Compare the jewelry in different contemporary cultures -- the more, and the more diverse, the better.
16) Have the attitudes toward jewelry, or the trends in it, had anything in common among primitive peoples?
17) What are some of the more spectacular Biblical descriptions of quantities of precious metals and gems?
18) Explore some stories and legends about jewels, such as the legend of the Hope Diamond's curse.
19) Go hunting through poems and songs, even through some classic detective novels, for signs of man's fascination with jewels.
20) In what ways are jewels or items of jewelry sometimes symbolic?

JUNK

Resources

Schwartz & Son, Inc. — Will conduct tours through the plant or visit classes.

An Exercise for the Student

Pretend you are an archaeologist many thousands of years in the future. You have just unearthed a large junkyard in what was once Charlotte, North Carolina, U. S. A. Dating shows that it was filled mostly in the period 1950-1980. Using only what you find there, how would you reconstruct the culture, values, lifestyles, and level of technical achievement of that time? (Go to the junkyard first!)

Create something artistic from junk.

Questions for Inquiry

1) Exactly how does someone make a business out of other people's discards?
2) Do garage sales have any appreciable effect on the legitimate junk dealers?
3) What is the condition of junk which dealers buy?
4) What are some of the types of junk that dealers sell to individuals? To other businesses?
5) What happens to junk no one wants? What possibilities for this junk may exist in the future?
6) What determines if something is junk?
7) Are there trends in which junk items are the hottest sellers? If so, what are some recent ones?
8) Which of today's junk items might be tomorrow's antiques?
9) Will recycling hurt the junk dealers? Or will it provide more markets for his business?
10) How have contemporary artists used junk to create new art forms?
11) What famous monuments or other works have been forged from cast-offs?
12) Find out about some "junk heaps" of the past, such as the old wells in Williamsburg.

KNIT GOODS

Resources

Knit Wits Dee Goodyear 377-1984	Gives lessons in knitting, crocheting, crewel embroidery, needlepoint, latchhook rugs, string art. Welcomes small groups in store, but cannot handle a whole class. Will provide information but cannot visit classes.
Allen Knitting Mills Paw Creek Tom Hamrick, Plant Manager	Will conduct tours or provide speakers.

An Exercise for the Student

Using graph paper, create a design for something which will be knitted.

Questions for Inquiry

1) How are knits techically different from textiles?
2) What does "double knit" mean?
3) How has double knit material affected home sewing? Ready-to-wear? What are its advantages? Any disadvantages?
4) How much has automation affected the knitting mills in recent years?
5) What was involved in producing the knits before the growth of automation?
6) How does one learn to operate a knitting machine?
7) Why has North Carolina become such a big center for knits?
8) How do you judge the quality of a knit product?
9) How old is knitting? How far back can it be traced?
10) How do you suppose knitting ever came about?
11) Why are knitted materials more desirable than woven ones for some garments?
12) How has the back-to-nature movement influenced hand knitting?
13) In the age of "women's lib" is knitting losing favor as a symbol of the unliberated woman?
14) Are more men tuning in to handwork such as knitting?
15) How do attitudes toward handwork vary today in cultures different from ours?
16) How is handwork such as knitting or embroidery useful as therapy?

LABELS

Resources

Package Products Company, Inc.
1930 Camdem Road
Mr. Sam Ryburn
377-2691

Lecture, slide presentation, possibility of Senior High students touring plant.

An Exercise for the Student

Picture yourself at a discount store: K-Mart, Woolco, Zayre. Now, mentally look around you and imagine that there is not one printed word or picture; there is no marking whatsoever to indicate the contents of boxes, cans, plastic bags. There are no labels. What problems immediately arise? Act out this situation in a playlet. Write an essay or poem based on the experience.

Questions for Inquiry

7) Talk about false labeling of products and of people.
8) Discuss the method and importance of labeling medicines.
9) What are trademarks? Find out how some early draftsmen labeled their wares.
10) Make a collection of interesting and beautiful labels. Or make a collage of labels from products used in your home.
11) Choose an article and study its label. List all the things it tells about the product. Then list some things it does not tell which the buyer might like to know.
12) To some people the "right" labels in clothing are a must. Since the labels are on the inside where no one can see them, why do you think some people are so concerned about this?

LABORATORIES

Resources

Charlotte Police Department Community Relations Bureau James E. Russ Community Relations Officer 374-2331	One hour tours of Law Enforcement Lab and Communications system.
Charlotte Memorial Hospital Pathology Department Don Williams 373-2251	Tours for not more than ten (per tour) junior or senior students schooled in biology and/or chemistry.

A laboratory is a room or department equipped for research, experiments and testing. There are laboratories in schools, hospitals, research institutions, government and industry.

An Exercise for the Student

Explain the steps in the Scientific Method in relation to a simple experiment you might carry out in a school laboratory. Then carry out the experiment.

Questions for Inquiry

1) What are some of the different kinds of medical laboratories? With what area does each deal?
2) How does information reach the lab?
3) What happens to it there?
4) Discuss some lab jargon -- microscope, specimen, diagnostic analysis.
5) Talk about lab [illegible] fans -- working conditions, susceptibility to disease.

[illegible] about [illegible]

11) Tour an actual laboratory and compare it with the laboratory in horror and science fiction movies, TV shows, and stories you have read.
12) What conditions are necessary in an ideal research laboratory?
13) What qualities are desirable in a research scientist?

LANDSCAPING

Resources

City Landscaping Department Mr. Tom McDermott, Supervisor 374-1453	Will give slide presentations.
Mecklenburg County Agriculture Extention Service Mr. Ted Caudle County Horticulturist 374-2561	Will give slide presentations.
Bartlett Trees Research Laboratories Hamilton Road, Route 1, Pineville Mr. Herman Porter Consulting Arborist 588-1150	Willing to cooperate with teachers in any way.
Land Planning and Land Architecture 127 Brevard Court Robert M. Jordan, A.S.L.A. 333-4729	Will provide information and slide presentations.

An Exercise for the Student

ADOPT A VACANT LOT...Learn from a vacant lot as if you were an archaeologist. Clean up a vacant lot as a service to our city. Make the vacant lot into something useful. Use a vacant lot as a sort of neighborhood commons.

Questions for Inquiry

1) What type of landscaping might be found in Japan, Mobile, Alabama, the San Fernando Valley, Lebanon, Taiwan?
2) What does it mean to say that a plant is domesticated? How do they change when they become domesticated? How does man change when he becomes "domesticated"?
3) What unexpected happenings can make a muddle of "all the best laid plans of

7) Collect pictures that show appealingly landscaped scenes and also pictures which show how man destroys the natural beauty of his environment. Make a display of these contrasting pictures, draw inferences, form hypotheses, and make conclusions.
8) In addition to beautification, what good results can be achieved through planned landscaping techniques?
9) Man is said to have a natural affinity for beauty, truth and goodness. Do you agree with this statement? Apply your opinions to the principles of landscaping.
10) Consider this statement: "Nature herself is the world's most creative landscape architect." Give examples to support your opinions.
11) What are some structual effects used to alter and enhance and produce illusions of our environment?
12) In two or three paragraphs create a garden setting where most of a projected story might take place. Create your garden in an unfamiliar location--the Alhambra, Tikal, a New York city rooftop, a French country manor.

LAUNDRIES AND DRY CLEANERS

Resources

Costner's 3221 Monroe Road Mr. M. Ravenbart 334-6439	Will conduct question and answer tour of Monroe Road plant.
Sno-White Launderers and Dry Cleaners, Inc. 901 East Fourth Street Mr. Bill Fee, Co-Owner 333-8885	Tour of plant for grade 3 and up; will speak to classes of junior and senior high students.

An Exercise for the Student

In some rural parts of the world women still launder on rocks in streams. In early times, in all cultures this was the system. What methods are now used? Compare the old and the new.

Questions for Inquiry

1) How does a small privately-owned laundry compete with chain firms?
2) Has the barrage of paper products affected the laundry industry?
3) How do the new wash-and-wear fabrics affect laundering/dry cleaning [illegible] What about double knits?

11) Do dry cleaners ever call on customers?
12) How do dry cleaners attract new business?
13) How do people get their clothes clean in Hong Kong? in Katmandu? in Kinshasa? in Caracas?
14) How did the stereotype of the Chinese laundry arise in the U. S.?
15) Find out the average weekly or monthly laundry bill for a large hotel or motel in Charlotte and compute the average cost per overnight guest. Can you think of any ways these expenses could be lowered?
16) Explain the chemical process which occurs in bleaching.
17) What did people do with their clothes before dry cleaning was invented? Pretend you are a wardrobe mistress to an eighteenth century American colonial dame, or a gentleman's gentleman, and write a description of your job in taking care of your employer's clothes.

LIBRARIES

Resources

Charlotte Public Library
310 North Tryon Street
Mrs. Darla Matthews
Mrs. Vivian Brown
374-2725

Tour for students in kindergarten through sixth grade.

Charlotte Law Library
730 East Trade Street
334-4912
Hours: 8:30-4:30, Monday-Friday

Medical Library of Mecklenburg County, Inc.
1012 Kings Drive
Mary R. Glenn
376-1227
Hours: 9:00-5:00, Monday-Friday

Central Piedmont Community College Library
1141 Elizabeth Avenue
372-2590 Ext. 307 & 308

University of North Carolina at Charlotte
Campus Library
Highway 49
597-2392

relations work interacting with the community. There might be an accountant, a purchasing agent, a secretary, a security guard, a maintenance man. What other job requirements might there be? Who meets these requirements in a smaller library? Does the public library have special lending arrangements for teachers? Students? The visually handicapped?

Available at Charlotte's Main Library are a backlog of magazines, an information and reference service, the lending of phonograph records, films, (both educational and entertaining), and framed prints and pieces of sculpture borrowable for a six-week period. Are these departments active and meeting the community's needs?

Libraries provide special services for younger children: story hours, film programs, tours. What plans has the library for additional programming?

Charlotte Law Library

After exhausting the resources of school and public libraries, the student may telephone and ask permission to use the Law Library. Books may not be checked out.

Medical Library

The Medical Library provides current medical information for the medical community and all health related agencies and personnel. Students may use materials in the library with the permission of a doctor or a librarian.

After the student has exhausted the resources of school and public libraries, his school librarian should call the Medical Library, give the student's name, and make arrangements for his use of the library.

Central Piedmont Community College Library

Telephone first. If desired title is available, it may be used in the library. CCPC books are loaned through the Charlotte Public Library.

University of North Carolina at Charlotte Library

Books may be used in the library any time during operating hours. There is a two-dollar refundable deposit charged on loaned-out books.

Questions for Inquiry

1) How does the library system decide where to build a new library?

2) [illegible] how the reading habits of Charlotte's populace be

9) What are the most imposing threats to the life of a library book?
10) Do books respond well to TLC or do they prefer more rugged things like long automobile trips?
11) How does a book know that it is loved?

LIGHTING

About Lighting

Lighting exists in varying degrees -- twilight and early dawn, high noon in the Sahara Desert, a moonless cloudy night. These are nature's own.

There are methods of lighting and reasons for lighting in divergent ways. These are artificial lighting.

Electric lighting has become an art and a science with specialists who work in home and industrial lighting. Research shows that improper lighting can produce such effects as headache, nausea, fatigue, dizziness. Various tasks require different amounts and methods of lighting. Lighting is also used to produce special effects.

An Exercise for the Student

A metropolitan city in daylight seems little kin to that same city after dark. Have you ever made a nighttime landing at the Charlotte airport and been impressed by the beauty of the distant city lights? Do municipal buildings seem more stately, more important when lighted creatively? Imagine yourself at night at the south end of a city street looking north (or <u>really</u> stand there). If a master switchman should darken the total scene -- each lamp post, neon, window -- what problems might arise?

Questions for Inquiry

1) How might the artist's lighting requirements differ from those of the operating room surgeon?
2) Consider the varying light needs of a merchandising showroom, a student's desk, an informal room.
3) What particular needs prompted the development of flourescent lighting, of ultra-violet light?
4) Who uses strobe lighting? Why?
5) What effects do blacklights produce?
6) What other usee of light cause special effects? How?
7) Make a list of all the different kinds of artificial lights you can think of. For example, to get you started: flashlights, traffic lights, desk lamps, spotlights, footlights...Then think where each is used and what its purposes are.
8) You are in charge of lighting for a stage play. Describe what kinds of lighting you would use for a play which includes scenes in a haunted house, a street corner in New York City, a cozy romantic rendezvous, and a business office.

LUMBERYARDS

Resources

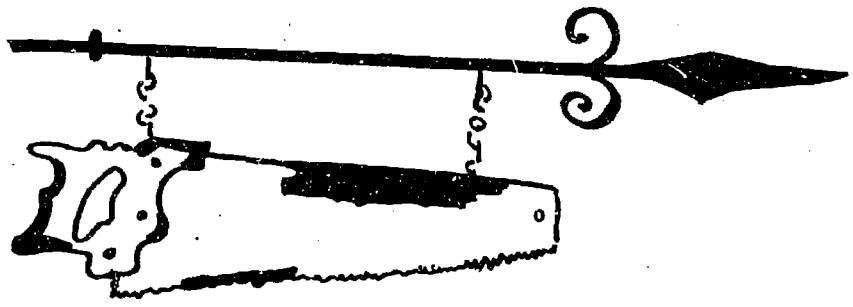
H & S Lumber Company 520 West Summit Avenue Dwight Davis 375-7761	Classroom lecture, tours welcome.
McClure Timber Company 6000 Mt. Holly Road Joe Bailey, Manager 392-1471	Tours of manufacturing plant. Classroom speakers available.

An Exercise for the Student

The walls of your school are probably concrete and steel, but the basic building material in the United States is lumber. 1) What is lumber? 2) Pretend that you are a Honduras mahogany paneled room: Talk about your origin. How did you become what you are? What can you remember of your youth in the forest? How did you feel when you encountered the sawblade? Did you feel a loss of freedom when you entered the sawmill?

Questions for Inquiry

1) Some wood is kiln dried; some wood is green. Explain what this means and why the necessary difference.
2) Why are some woods called "hard" and some called "soft?" Does a microscopic examination show distinctive composition?
3) What are some uses for hardwoods, for softwoods?
4) What is plywood?
5) How did plywood originate?
6) Describe some uses of plywood.
7) Is plywood better than finished lumber? Why?
8) In a lumberyard are various sizes and shapes of wood -- what are their uses?
9) Some woods are the more beautiful for having blemishes. What are some of these blemishes.
10) There are some unusual woods and some unusual uses for wood. What are they?
11) What hazards must the lumberyard owner anticipate and how does he deal with them?
12) For what uses would you choose a wood for its beauty? Its strength? Its low cost and availability? Its odor? Select a particular wood for each use.



MAGICIANS

Resources

Abra-Ca-Dabra
Magic & Entertainment
3948 Woodgreen Terrace
Mr. Larry Rockman
537-2200

Will lecture and demonstrate.

About Magic

Magic is fascinating! The ordinary is made to seem extraordinary. Objects appear to have relationships that do not exist in reality. Certain kinds of magic even touch worlds that are believed to exist outside the commonly held sensory field. Magic, in some cases, claims to communicate with past and/or future events and people.

What comes to your mind when you see or hear MAGIC? Does there exist a special kinship between magic and religion? How would cause and effect view magic phenomena? What interesting and far-reaching effects has magic had in world history?

MANAGEMENT DEVELOPMENT & CONSULTANTS

Resources

William Morris Association, Inc.
1 Woodlawn Greene Suite 230
Mr. William Morris
527-2130

Can provide speakers to classes.

Dr. James Carr, Industrial Psychologist
2916 Goneaway Road
366-2220

Can lecture to high school students.

An Exercise for the Student

Pretend that you are an Industrial Psychologist working for a large corporation. The last guy you recommended for Sales Manager freaked out. Assign attitudes for three of your fellow students to role play. Interview the three of them in front of the class and hold a secret ballot to decide who to hire.

Questions for Inquiry

1) What kinds of stumbling blocks lie between a person's potential and his performance?
2) How does a company's image attract job applicants?
3) What results when a company concentrates on production and forgets people?
4) What changes have taken place which encourage friction between employer and employee?
5) Discuss this theory: The company owes its employee only $2.50 per hour. The employee owes his company only eight hours per day. How would the Industrial

Psychologist deal with these attitudes?
6) For what reasons can the Peter Principle be applied to almost any company?
7) How can this be avoided?
8) What happened to the idea that a good machinist can live a rich life doing a conscientious job of machine-operating? Is this a change for the better?
9) Is earning potential the most widely used measure of a man? Is this good?
10) Can just anybody be a good salesman? Why?
11) "We are all selling, all the time." Apply this statement to you and your classmates.
12) Discuss the controversy between personality, perserverance and product in selling. Over a lifetime, what counts for the most?

MAPS AND GLOBES

Resources

Champion Maps
715 Norwell Place
Mr. Ken Brown, Executive
Vice-President
377-6938

Can provide lectures; tour of facilities.

An Exercise for the Student

You have two good friends. One is an airplane pilot. The other is a cross country auto buff. Since you are a famous cartographer, each has come to you for help. Your mission is to chart two courses from Jacksonville, Florida, to Providence, Rhode Island. One chart is for air travel, the other for auto travel. Make the best maps you possibly can.

Questions for Inquiry

1) Describe different types and techniques of map-making.
2) What are some of the particulars that the modern cartographer seeks to include on new maps?
3) What factors dictate the size, colors, and price of maps?
4) Compare a world map charted in the mid-1700's with one of the most contemporary world maps.
5) Discuss aerial photography and map-making on the local level.
6) Are there international standards or laws governing the printing and distribution of maps? Explain.
7) Maps and globes are similar in many ways. Discuss the likenesses and differences.
8) What advantages has one over the other?
9) If you were charting a spaceship ride of our solar system, what would you include on your map? What colors would it be? How large would you want it?
10) A map is a type of graph. Discuss some other graphs and their uses.
11) How were boundaries determined before survey equipment was invented?
12) Write an original poem about boundary disputes between two pioneer families.

MARKET RESEARCH & ANALYSIS

Resources

Eastman Kodak Company
501 East Morehead Street
Mr. William Seely, Staff Assistant
377-4585

Can provide lectures (high school level).

An Exercise for the Student

Analyze the bubble gum chewing habits of your classmates. Use interviews and questionnaires. Now, produce and be prepared to market the "ideal" bubble gum. Create advertising, slogans, gimmicks, sales campaigns.

Questions for Inquiry

1) How does the market researcher go about assembling his data?
2) Describe the relationship between supply and demand.
3) Why might a market researcher consider such factors as regional and cultural trends?
4) In successful marketing, how much depends on a company's image?
5) Why does the public sometimes seem to resist en force a good product?
6) Discuss some of the pitfalls and taboos to which the market researcher must be alert.
7) How does market research view the "fad?" Is a fad a natural or forced phenomenon?
8) Explain how market research deals with services as well as products.
9) What would be a rough formula for a "sellable" product?
10) How gullible is the public?
11) Does market research deal with profit and loss? Discuss.

MOTION PICTURE PRODUCTION

Resources

Walter J. Klein Company
6301 Carmel Road
Walter J. Klein
366-2310

Lecture; tour of studio and laboratory.

Car-Mel Motion Picture Company
4823 South Tryon Street
Mr. Ervin Melton
525-3811

Lecture; movie; tour (4-12 grades). Small groups of older students can watch a scene being filmed.

Variety Films, Inc.
221 South Tryon Street
Mr. R. W. McClure
333-0369

Lecture; tour. Can give information concerning production and distribution of films. If any production is going on visits can be arranged.

An Exercise for the Student

Divide the class into two groups. Have one group write, rehearse, make props for, and be prepared to film a five-minute dramatic sequence. The other group should produce a comedy sequence.

Upper grade students can actually film this type of production. If actual filming isn't feasible for a younger group, have them (using movie-making techniques) create a mural or diorama of their "movie."

Questions for Inquiry

1) Compare a motion picture producing company in a city such as Charlotte with the large New York or Hollywood producers.
2) Describe the artistic attributes of a motion picture producer.
3) In motion picture producing, what is the relationship between supply and demand?
4) Talk about "underground" movie making.
5) Movie making has become an art from in itself. Discuss some reasons.
6) Compare black and white film making with color film making.
7) Describe from start to finish the production of a twenty minute film.
8) What equipment must even a small motion picture producer acquire?
9) What are the fundamental aspects in production of a good travelogue film?
10) Discuss the interdependency between sight and sound in film making.
11) Describe the different motives for film making -- social comment, information, entertainment, etc.
12) What constitutes a timeless film?
13) Talk about wear and tear, the "life" of a film.

MOTORCYCLES

Resources

Suzuki of Charlotte 4007 Wilkinson Boulevard Mr. Dave McElyea Mr. Dolph Varner 392-4480	Lecture (SAFETY); Can provide knowledgeable persons to visit classes, especially concerning teaching safety.
McDougal Motorcycle Company 6501 South Boulevard Mr. Terry Moore 523-5062	Will provide speakers for classes.
Yamaha City 3735 Wilkinson Boulevard Mr. Bobby McIntyre 392-7418	Can provide someone to talk to groups and can arrange visit to shop.
Charlotte Motocross Association Call local motorcycle dealer for information about events.	Sponsors three events per month. Membership $15. Races open to non-members.

An Exercise for the Student

You live in Charlotte. You would like to visit New England in an economical, adventuresome way. Plan a motorcycle trip with your best buddy. Interview a cyclist who has taken such a trip. 1) Discuss the minimum "bike" feasible for your purposes. 2) How about night riding? 3) What hazards exist for the cyclist on a long trip? Have fun!

Questions for Inquiry

1) Who is buying and riding motorcycles?
2) How does horsepower affect speed?
3) Are there motorcycle clubs in Charlotte? What services do they perform?
4) What are the advantages of owning a motorcycle?
5) Compare the motorcycle engine with an automobile engine. Are they alike, made up of corresponding parts?
6) Discuss motorcycle rallies and races. Where are they held? Why are they so popular?
7) Was the motorcycle invented or did it evolve? How long ago?
8) Discuss the possibility that motorcycling satisfies some of a person's creative urges.
9) Compare the motorcycle as a means of transportation with automobiles, buses, airplanes.
10) What advantages has each over the other?
11) If you could own one and only one (but any one) motorized vehicle for the next five years, which one would you choose? Why?
12) Project the future of motorcycling in the United States. What ecological problems are posed?

MOVERS AND STORAGE

Resources

Carolina Transfer & Storage Company 1230 West Morehead Street Mr. Flay Smith 334-0851	Lecture; tour.
Charlotte Van & Storage, Inc. Agents for North American Van Line 213 Verbena Street 525-4660	Lecture; tour; answer questions; would take big van to school and let children get in, etc.

An Exercise for the Student

Make up a Treasure Chest packet of rather unusual items that the family of a much-traveled, much-moved army officer might have accumulated. (Each item should be native to a particular geographical area and should have moved to several different places in its lifespan.) Recreate the various settings encountered by each treasure. Describe the pleasures and pain involved in this transient sort of life.

Questions for Inquiry

1) Discuss the transient nature of modern American life.
2) How are moving estimates reconciled with actual moving costs?
3) Describe proper and improper methods of packing.
4) Is there a system in the loading of a moving van? Discuss.
5) How do van drivers go about routing a trip? What factors must be considered?
6) What particular considerations are given to overseas transfer contracts?
7) Discuss profit and loss patterns and causes.
8) How do numerous moves affect a child's sense of history?
9) How might a family cope with a situation where their household goods left in Kansas City but never arrived in Charlotte?
10) How are transfer company insurance rates fixed?
11) Compare the Westward move in 1850 by covered wagon train with today's modern move.
12) How do transfer and storage companies co-operate (and compete) among themselves?
13) What do you see in the future of the moving industry?

MUSEUMS

Resources

Charlotte Nature Museum 1658 Sterling Road 333-0506	Complete services; brochure available.
Mint Museum of Art 501 Hempstead Place Ann Lambert, Curator of Education 334-9723	Tours; films; art library.

An Exercise for the Student

An interested private individual has just donated to the city of Charlotte $500,000 to be used to construct a folk museum. The mayor has appointed you to investigate all the procedures and possibilities. Divide your class into committees of four or five students to investigate and file oral and written reports on different aspects of this project. Some suggested committees would be: 1) acquisition of land 2) building design 3) personnel 4) operating procedures, etc.

Questions for Inquiry

1) What one person sees as museum quality objects another person sees as "junk". Explain this paradox.
2) Explain the popularity of certain museums and types of museums.
3) Discuss museums in cultures different from that in Charlotte.
4) Do the Charlotte museums represent the city? Is there something of interest to everybody? Explain.
5) Why have museums at all?
6) Compare building design, lighting, and object placement in two different kinds of museums.

7) What relationship exists between the population of a city and the wealth, number, and size of its museums?
8) In your opinion, which would serve a city better -- one large centrally located museum or several specialized museums in different geographical areas. State your point of view fully and explain. Now state and explain the opposite point of view.
9) If only one museum existed in all the world and it must depict the most important area of life, what would it be like?
10) Design a museum of the future. Justify your choice of objects.
11) Discuss museum theft and the black market trade.

MUSICAL INSTRUMENTS

Resources

Mr. John B. Howren 3920 Park Road 525-5073	Lecture; demonstration of all types of instruments.
Mr. John Sipe Mr. Enrique Randales 500 South Tryon Street 333-4547	Lecture; demonstration of violin.
Hi-Fi Camera Shop Charlottetown Mall Mr. Fred Nance 377-3492	Lecture; demonstration of guitar making and playing, from classic and flamenco to jazz and folk.

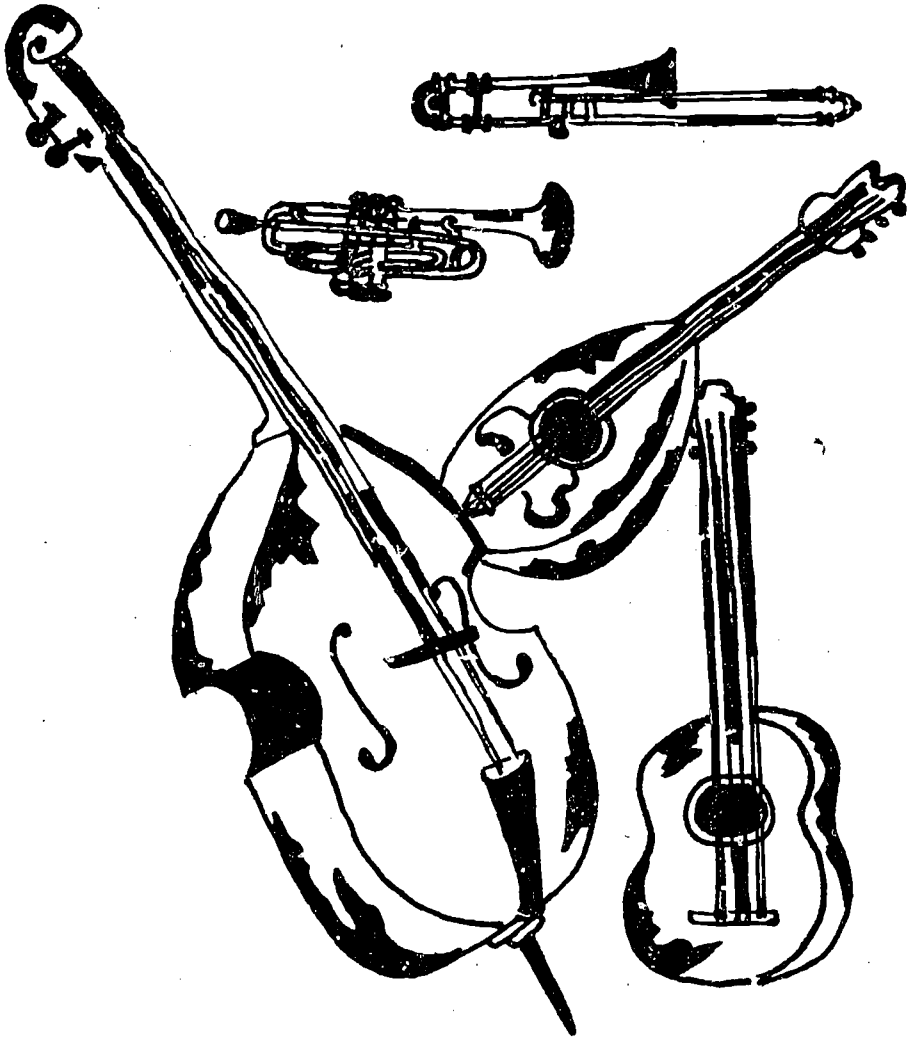
An Exercise for the Student

Based on your knowledge of how sound is made, describe how you would make a musical instrument to add to each of the major classifications. Make one!

Questions for Inquiry

1) Discuss the ways in which sound is made by each of the three major classes of musical instruments.
2) Each particular instrument was "born" in a certain way for a certain purpose. Describe how your favorite instrument came about.
3) How do different instruments complement one another?
4) If you were to go to a track and field day where all the contestants were musical instruments, describe some of the outstanding events.
5) In what ways can the sound of some instruments be altered to create different effects?
6) Why do some instruments require extra special care and what does this care involve?
7) How do accoustical conditions affect the sound of various instruments?
8) In what ways might one alter conditions in an effort to increase the quality of sound?
9) What is sound pollution? Does the instrumentalist have a responsibility here?

10) What might happen if all musical instruments simultaneously disintegrated?
11) How does harmony or disharmony in instruments affect people's moods?
12) What might be some reasons why most adults can't stand Alice Cooper or Pink Floyd?
13) Write a biography: The Life and Death of Chamber Music.
14) Describe and discuss The Glass Bead Game.
15) Some instruments have come to be identified with a particular geographical area. Which story interests you? Share it!



NATURAL GAS

Resources

Piedmont Natural Gas Company
901 South College Street
Mrs. Lydia Brincefield or
Mrs. Carolyn Petty
Home Economists
372-7050

Will present a variety of programs in the schools tailored to needs of individual classes. Also, can show any of several films of interest to science classes and others.

About Natural Gas

1) Natural gas is as old as Delphi's oracle and its escaping vapor was put to use very early in the Orient. Why then, was it the nineteenth century before natural gas was put to widespread use?
2) What geological processes are necessary to the production of natural gases?
3) Discuss the various types of and uses for natural gases. How can gas be termed "dry"?
4) Why do certain industries prefer using natural gas for power and fuel?
5) Home consumption of natural gas is widespread, but still more prevalent in some geographical areas than others. Draw a series of maps to emphasize this point.
6) Model and paint to scale a representation of natural gas as it lies beneath the soil.
7) What are some of the differences between the gasoline used for lawnmowers and natural gas? Give attention to their raw state, production methods, uses, the advantages and disadvantages of each.
8) Is natural gas found in off-shore drilling? Discuss the physical dangers in the transportation of natural gas.
9) What controls govern natural gas production? Are there federal laws? Who owns natural gas companies? How are landholdings and pipeline right-of-ways determined?
10) How long should natural gas continue to be expected to serve as a major fuel source? What methods of conservation have been implemented? What additional ones would you suggest?
11) How does attention to the preservation of all natural resources inform the public and put pressure on the suppliers to constantly seek new methods of improvement in regard to handling and conservation?
12) Is the synthesis of "natural" gas possible? Explain your answer.
13) Imagine that you are a natural gas hydrocarbon atom who has spent centuries beneath the earth's surface. Your inquisitiveness prompts you to seek liberation. Tell your story in a creative way--how you became what you are, how it feels to exist in a gaseous pool, the spontaneous joys of experiencing sunlight and free oxygen for the first time.

NEWSPAPERS

Resources

Knight Publications
The Charlotte News
The Charlotte Observer
600 South Tryon Street
Mrs. Virginia Burris,
Tour Co-ordinator
374-7228

Tours arranged for any particular interest and are willing to cooperate in any way with teachers.

Associated Press Wire Service
721 South Tryon Street
Mr. William J. Dill, Chief of Bureau
Mr. Roger Jolly
334-4624

Will arrange tours, provide speakers to classes, pamphlets and films.

Mecklenburg Times
501 East Trade Street
Ms. Doris Ellis
372-3124

Will provide speakers and demonstration of news production.

Mullen Publications, Inc.
Southern Textile News
Furniture News
4900 Wallace Neal Road
Mr. Ernest Elkins, Editor
392-6349

Will supply materials and arrange tours.

An Exercise for the Student

Each student should have a copy of a daily newspaper. Have them go through the paper and decide how many types of reporting are represented, the various types of information that are included in the newspaper, the amount of space devoted to advertising, the placement of particular information. Then, as a class project put together a newspaper which will use as its source the subject matter you have been studying (i.e. Asia, a work of literature, a phase of science, or current events). Pattern your newspaper after the daily that comes to your home. Invent stories, editorials, cartoons, weather, advertising...Just let your imaginations soar!

Questions for Inquiry

1) What are the primary purposes of a newspaper? In your opinion do Charlotte's newspapers meet the city's needs for news?
2) Is there any country in the world today that does not have a newspaper? In what ways do you suppose their people are kept informed?
3) Who was Joseph Pulitzer? What contribution has he made to journalism?
4) What are the laws governing libel charges?
5) Compare the scope and effectiveness of newspaper advertising with other means of advertising.

6) Explain the job of a newspaper editor. Stories in the past have dealt with editors who demanded fear, respect and love from employees. How do these stories and television portrayals reflect the true work of an editor?
7) How common is deliberate witholding or altering of news accounts? What is "yellow journalism"?
8) Research individual journalistic writing styles. What characteristics do all good news stories share?
9) The newspaper must go to press on a daily schedule. How, step-by-step, does a newspaper assure itself of meeting this continual deadline?
10) What took the place of newspapers in ancient China, Rome, or Peru?
11) How do newspapers reconcile the hard facts of making money with their philosophy of presenting all of the facts?
12) Why is a free press necessary to a democratic society? Investigate some past examples of news manipulation and outright suppression.
13) Collect different news articles on the same subject and determine their slant or bias.
14) Trace a single story from "tip" to print.
15) What do pigeons and the wire services have in common?
16) Give as many examples as you can of propaganda, both good and bad.
17) Compile a "Guide to Newspaper Jargon", in which you give definitions and examples.
18) What one event has happened in your lifetime that you would like to have witnessed first hand? Gather all of the information you can and write an eye-witness account.

NURSING

Resources

Providence Convalescent Residence, Inc. 300 Providence Road Mrs. Frances Frazier, Director of Nursing 334-1671	Will arrange tours and provide speakers.
Central Piedmont Community College Department of Nursing 1141 Elizabeth Avenue Mrs. Jessie Kiser, Chairman 372-2590 Ext. 353	Tours can be arranged and speakers provided, with two weeks notice.
Mercy Hospital Nursing Education 2000 East Fifth Street Mrs. Lynn Jolly 334-6831 Ext. 235	Will arrange tours of the facility and provide speakers to classes and information.

An Exercise for the Student

Arrange an interest center which includes as many tools as possible of a nurse's trade. Supply books, pamphlets, and A-V materials which may be used for reference. Have the class list all of the things they know about nursing. Then have them determine what needs to be known, formulate hypotheses, and go through the processes of proving their conclusions.

Questions for Inquiry

1) Describe the different nursing jobs within the overall occupation.
2) What was a nurse like in the Crusades, with Alexander the Great, or the Golden Horde?
3) Consider the reverse of women's liberation. How would you like a male nurse?
4) Are there particular personality traits which make for a happier, more productive nursing career? Explain.
5) How are nurses subject to physical and mental stress? What are some healthy ways of dealing with these pressures? What, unfortunately, are some unhealthy ways?
6) Interview a nurse and ask her to compare her duties with the life of nurses as portrayed on TV--how much routine is there, how much intrigue?
7) How do professional nurses view some of the home remedies which are used?
8) Was there really a Florence Nightingale? How and why has this name become legendary?
9) What significance has the nurse's badge; a nurse's uniform?
10) What are some right and wrong ways of nursing?
11) Study some outstanding examples of heroism and dedication in the nursing profession (work in the mountains of North Carolina, response to natural disasters and to war).
12) In your opinion, are kindness and compassion human instincts or culturally learned reactions?
13) What is the relationship between the head nurse on a hospital floor and the physicians whose patients are placed in her care? For what, specifically, does the doctor depend on the nurse?
14) Under what circumstances should the untrained attempt to administer aid?

OIL COMPANIES AND SERVICE STATIONS

Resources

Exxon Company, U.S.A. 6230 Fairview Road Mrs. Polly Gresham 366-8464	Offers 7 different talks and slide presentations on such subjects as the environment, the energy crisis, consumerism, care of the automobile, production of oil and gas, etc.
Cities Service Oil Company 4012 Park Road Mr. D. H. Reber Marketing Services Manager 525-8770	Will arrange for speakers geared to age of students and teachers' needs. Also with advance notice can arrange slide presentations. For older students, engineering specialists can talk on construction and layout.
Gulf Oil Company J. D. Watkins Fuel Oil Manager 333-6129	Can talk on oil industry, energy crisis. Also film available.
American Oil Company 1134 Fox Run Drive Mr. Charles J. Jones Territory Manager 536-0544 or 399-6331	Can speak on all phases of oil industry. Advance notice needed to tailor program to needs and age of students.
Texaco, Inc. Paw Creek, North Carolina Mr. Bill Highsmith Training Supervisor 399-3374	Can speak to classes and bring audio-visuals.
Union Oil Company of California 1952 East 7th Street Mr. Ray M. Hester Retail Sales Manager 376-1642	Can speak to classes and bring materials.

An Exercise for the Student

Armed with a map of Charlotte and a current telephone book, locate in red the sites of all of the present service stations in our city. Get a copy of a 1960 telephone book of the Charlotte area and locate those service station sites in blue. Note all of the changes that you can and then speculate on the whys behind these changes.

Questions for Inquiry

1) You have just signed a contract, as a geologist, to explore a three-square-

mile area off the coast of Mexico in the Gulf for petroleum deposits. How would you proceed? Describe some types of off-shore drilling. What are some of the risks and hazards that workmen might encounter? Who legally owns mineral rights of the oceans?

2) List all of the useful products which are derived from crude oil.
3) What are some of the reasons being given for the present gasoline shortage we are now facing in the U. S.? In your opinion what are some possible solutions to the immediate and long range shortages?
4) Indicate on a world map the ten areas which produce the most oil and then compute those five nations of the world which consume the majority of oil. What subsidiary industries have grown up to transport the oil from source to consumer?
5) Gasoline stations all over the U. S. have become Service Centers. What has prompted this transformation? What might our service station of the Eighties look like?
6) Compute from a 40¢ gallon of gas where each penny goes. Make a bulletin board display to illustrate your findings.
7) Describe the entire process which ends up as gasoline for your minibike or car.
8) Visit what seems to you to be the busiest service station in your neighborhood. From your observations determine the reasons behind its popularity.
9) Another headline reads: "Gas station robbed. Attendant wounded." Write the story. What protective measures have service stations been forced to adopt? Where have they failed?
10) Give some reasons for and against owning gasoline credit cards.
11) Many advocates of environmental aesthetic improvement are pleased about the fuel shortage because maybe then we'll get rid of those ugly stations. How might service station facilities be designed so that they would blend more with their surroundings, instead of being eyesores?
12) How do service stations manage to make money when there are so many of them? What are gas wars? Is there a place for the "small, independent" or should the oil industry be nationalized?
13) Conduct a "man on the street" interview on how they view service stations. What do the employees of service stations think of the general public?
14) Listen carefully to a variety of television commercials trying to sell gasoline products. What image is each trying to create for its product? What assumptions are made? What major "pitch line" are they giving to get you to buy their product?
15) What is the relation between the large oil companies and the local service stations? What controls or regulations are placed on the service station? In order to get a franchise, what must be agreed to? Do you agree with the entire concept of franchising?

OPERA, ORCHESTRA, ORATORIO, AND OTHERS

Resources

Charlotte Opera Association Mr. Kelly Alexander Business Manager 334-0787	Will be happy to arrange speakers on opera singing and the inner workings of the opera association. Students or classes may come to dress rehearsals free when accompanied by an adult.

The Charlotte Symphony Orchestra Anyone who answers 827 East Boulevard 376-2765	Can provide classroom speakers. Dress rehearsals (the night before concerts) are open to students.
Youth Symphony of the Carolinas 1550 Coventry Road Mrs. A. L. Chason, Jr. 366-5916	Open to rising seventh graders to rising twelfth graders by audition only. Concerts are free.
Charlotte School of the Fine Arts First Presbyterian Church Mr. Henry Bridges, Executive Director 377-4187	Classes are open to all of the community. Any fees charged are based on the ability to pay.
Oratorio Singers Ms. Jeanne Runge Executive Secretary 375-7512	Are preparing a taped presentation and will make class visits to explain oratorio singing. The Friday night dress rehearsals are free to students.
Charlotte Choral Society Mrs. Eugenia Warner 377-5343 - Night	Will co-operate with teachers in any way.
The Sounds of America (Teenage Singing Group) Mr. Tom Hasty 525-7891 - Office 364-2438 - Home	Meets Tuesday evenings 7:00 at Christ Episcopal Church Fellowship Building. No auditions necessary.

An Exercise for the Student

Attend a dress rehearsal of the Charlotte Symphony Orchestra. Try to identify each of the sections of musical instruments by sound. How many individual instruments can you discern? Listen closely and then write a description of the feeling you associate with the sounds of each section. What color does each instrument section suggest to you? What sounds peculiar to nature do you ascribe to each?

Questions for Inquiry

1) What are some similarities between an orchestra and a band? How do they differ?
2) You want to hire a concert master for an orchestra. Write a newspaper advertisement and job description that might entice applicants.
3) Agree or disagree; "A community's cultural level is directly reflected in the quality of its performing musical groups".
4) Write a poem which emphasizes the relationship between musical notes and fractions.
5) Discuss the discipline and rigors that are part of a musical performer's life. Are the members of our major community musical groups professionals? What legally is the difference between a professional and amateur muscian?

6) Transform any unit of study you have completed into an operetta.
7) What different types of musical repertoires might each of the performing groups choose?
8) In what ways do volunteer organizations act as a liaison between musical groups and the public?
9) How are areas, more isolated and less populated, faring in providing excellence in the performing arts field to patrons?
10) Work on the skill of Learning to Listen. In order to fully appreciate a musical performance, what types of things should the listener try to discern?
11) How is the human voice like a musical instrument?
12) Discover the stories behind the plots of famous operas or how famous symphonies made their debuts.
13) Describe the opera forms of other cultures (i.e. Japanese Noh, People's Republic of China vs. classical Chinese opera).
14) What might it be like to make your debut on the stages of La Scala, or the Met?
15) What is the role of the music critic? Try becoming a critic after you have seen a performance.
16) What are the differences between serious music and popular music?

OPTICS

Resources

Colwick Optical Center Colwick Road Mr. James Myers, Manager New phone listing	Will furnish speakers and information on eye-glass service.
Bausch and Lomb, Inc. 1500 East Third Street Mr. Leo Biedrycki Regional Manager 372-1873	Willing to cooperate in any way.
Doctors' Clinic Freedom Drive Shopping Village Dr. Robert Ward 399-0477	Will be glad to speak to classes and give information on optometry.
Dr. George S. Miffleton 6300 East Independence Boulevard 535-0925	Will be glad to speak to classes on optometry.

An Exercise for the Student

You have found a pair of glasses belonging to one of your schoolmates. But these are also magic glasses. If you put them on, they will enable you to see the world as your friend sees it. Imagine that this friend is someone very different from you--his background, his home, his economic status, his religion, his race, his attitudes, his problems, his plans for the future,

his fears--all different from yours. Describe your feelings as you first look through your friend's glasses. What things look the same? What things look different? How are they different?

Questions for Inquiry

1) The eye is the most critical sense organ of the human body. Explain in detail and diagram how the eye sees.
2) Modify your diagram of the eye to become a camera. Explain in detail and diagram how a camera sees.
3) Pretend you are a camera photographing the things you see. Write a short story about the pictures you take. Remember that a camera merely records what it sees; it does not make judgments about these things.
4) Some optical instruments increase the ability of the eye in seeing. Other optical instruments "see" what is invisible to the eye. Name these instruments and evaluate their usage. What particular professions depend heavily on optical instruments?
5) How are high speed computers used in the science of optics?
6) What is an optical illusion? Create an optical illusion of your own.
7) What we think we see is greatly influenced by what we expect to see. Try this for yourself by writing a sentence with a deliberate error such as the omission of one letter which changes one word into another word. See how many people notice the error. Explain how a magician uses this idea to fool his audience.
8) Discuss the most common causes of blindness and their prevention.
9) What are Newton's rings? Who uses knowledge of this phenomenon?
10) What is visual acuity? How is it measured?
11) Describe the most common eye defects...those which are correctible with glasses or contact lenses. Explain how defects are corrected.
12) Why is a housefly's eye better than a suit of stainless steel armour? Write a poem about the eye of a fly.
13) Considering that the eye is primarily a light receptor, list all objects you can think of that have "eyes." (A house has windows, etc.)
14) How do the eyes of various animals differ from the human eye? Do you think that the vision of Zinjanthropus functioned with the same efficiency as your own? Explain.
15) What adaptive changes might the eye undergo as a result of air pollution?
16) How do hallucinogenic and alcoholic drugs affect vision?
17) What is meant by "looking at the world through rose-colored glasses"?
18) What kind of person could be described as one who "looks at the world through the wrong end of a telescope"?
19) There is an old saying "Seeing is believing." Is it? Explain why you agree or disagree.

ORGANIZATIONS, CIVIC

Resources

Charlotte Rotary Club
300 South Tryon, Room 402
Mr. Dalbert Shefte
Chairman of Speakers' Bureau
332-8576

Maintains a speakers bureau and will locate a speaker to fit individual teachers' needs.

Charlotte Optimist Club Mr. Vincent Cardinal, President 334-1681	If students are interested in civic affairs, they can get them involved in any way.
Charlotte Central Lions Club Mr. John E. Sturgis, President 376-9881	Will be willing to cooperate with teachers in any way.
Charlotte Kiwanis Club Mr. James J. Cardo, President 2401 South Boulevard 523-8561	Will to cooperate with teachers in any way.
Providence Civital Club Mr. R. G. Ussery, President 372-2460	Willing to cooperate with teachers in any way.
Charlotte Jaycees Mr. Gary Krueger, President 374-5940	Willing to cooperate with teachers in any way.

About Organizations

When men find a common point of interest with one another the tendency is to gather and unite in a common effort. Man is a gregarious, social creature who often takes extreme pride in being his brother's keeper. What one man can't carry, two often can; and through experience man learns to help when help is required, and to make improvements as new needs arise.

Civic clubs have certain characteristics in common. What is most notable is the degree of fervor and perseverance that emerge when one organization directs its total effort toward a specific project. One person, who sees a need or has a dream, is able to tap a bottomless well of energy if he finds empathy within a civic organization. It seems the word impossible does not exist to a group of dedicated, enthusiastic people who are joined in a common cause.

To illustrate this point make note of all of the projects, past and present, of various civic organizations in our city and then see how you as an individual can best achieve through organizations those things you hold dear.

PACKAGING

Resources

Rexham Corporation Pineville Plant Mrs. Payne 889-7262 or Mr. Harry Weebler 372-8060	Will arrange tours of their plant which deals with textile packaging, graphic arts, and boxes for food. Will speak on all aspects of packaging.
Stylecraft Packaging 1303 Arrowood Boulevard Mr. Charles May 588-0220	For 9th graders and above they will provide classroom speakers and plant tours.

An Exercise for the Student

Collect as many samples as possible of packaging products. Study each one from the following standpoints: materials, design, eye appeal, practicality, disposability, biodegradability. Put your conclusions in chart form.

Questions for Inquiry

1) Before the days of packaging, buyers must have had to take their own containers to market. Find out just what people did use in some of the old cultures.
2) Trace the development of packaging from its early, simple forms to today's complex variety.
3) What changes in products, trade, and the economy have made packaging needs so much more complex and important?
4) What new materials in recent years have increased the variety of packaging? Did packaging needs in some instances help bring about new materials?
5) What is the primary purpose of packaging? The secondary purpose?
6) How important is eye appeal and color in packaging consumer products? Do these decorative frills increase the cost of the product substantially? Is eye appeal of packaging more important for some kinds of products than for others? Explain.
7) Why are some small items (like Chapstick) packaged in containers two or three times larger than necessary?
8) When was the last time you chose one product over another because of the packaging? Explain why.
9) What materials are used most for packaging? What advantages do different materials have for different packaging purposes?
10) How are chemicals used to treat packaging? Why?
11) What special considerations are required for preserving the freshness of perishables?
12) Who designs packaging and on what specifications?
13) How much a part of the pollution problem is the manufacture of package products? The throwing away of the packaging?
14) What steps are members of the industry taking to relieve these problems (a) in the manufacturing itself (b) in making the products biodegradable (c) in educating the public?

15) What are the responsibilities of the public in this throwaway culture, anyway?
16) Collect all the packaging waste generated by your family for a month (or a week) and weigh it.
17) Describe many different career opportunities in the packaging industry.
18) Plastic film was used in the past as packaging on war planes. Could that film be put to good use in other ways now?
19) What further innovations in packaging may we soon see?

PAPER

Resources

Bowaters Plant Rock Hill, South Carolina Mr. Ed Hawes, Plant Manager 328-0131	Will arrange tours for ages 12-18 of the newsprint plant.
Mrs. Nana Stanley 536-6937	Demonstration and talk on origami, the art of paper-folding.
Carolina Paper Board Corporation 443 South Gardner Avenue Mr. William Wood 376-7474	Will provide speakers. (Tours of plant now prohibited by law).

An Exercise for the Student

As a class project make a huge paper picture--a collage--either abstract or graphic, using as many different kinds of paper as possible. Concentrate on a wide variety of patterned papers and textured ones. (Since there are more than 7,000 kinds of paper, variety should not be hard to get!) Make the picture as interesting to the touch as to the sight.

This project can be taken still further, if you wish. For instance, trace the paper back through its manufacturing processes to its source. Learn what different processes produce the different types of paper, and what the resulting papers are most used for.

Questions for Inquiry

1) To get an idea of the scope of paper's use and influence in our lives, look up some statistics on paper usage: How much is used per person in the U. S. in a year? How much of this is thrown away, and what happens to it? How many trees does this usage represent? How much recycled waste paper does it take to save a tree? How much of each tree is used in paper manufacturing? If any is left, what happens to it?
2) Just how is paper manufactured?
3) What pollution problems come from the production of paper? What controls are required? Are others needed?
4) If you were a piece of paper whose ancestry went back to rags instead of wood pulp, what kind of paper would you probably be? If you were formed from recycled waste paper, what kind would you most likely be?

5) What is used to give the slick finish to the pages of many magazines and textbooks?
6) Describe some of the different types of paper and the way they were manufactured.
7) What new kinds of paper and new uses for paper have been made possible by developments in chemical treatments?
8) What are some of the newest uses of paper? What others may there be in the future?
9) Compare paper and plastic as materials for containers, packaging, etc. What are the advantages and disadvantages (a) in production (b) to consumers (c) in pollution problems?
10) What is a watermark? Trace the history of watermarking.
11) What were the forerunners of paper?
12) Learn the history of paper as we know it. Trace its spread across the world from the place of its origin.
13) What two-way relationships can you describe between developments in paper manufacture and in mass printing?
14) How is even papier-mache connected to the printed process?
15) Name some kinds of papers there would be no need for if it were not for the printing press. Name some kinds that could not even be made under the same conditions.
16) What are some of the many uses of paper as an art medium?

PARKS

Resources

Carowinds Ms. Ellen Linder 588-2600 Ext. 23	Will provide A-V materials and speakers.
Charlotte Parks and Recreation Commission 310 North Kings Drive Mr. Tom Moore 374-2884	Will speak on a variety of topics from park development to kite flying.
The Community Centers, Picnic Areas, Swimming Pools and Gardens scattered throughout the city.	Pleasurable tours guaranteed!

An Exercise for the Student

Design -- either by drawing or writing a description -- your ideal park.

Questions for Inquiry

1) How many kinds of parks can you think of and describe? Are there differences in the users of these varying parks, and their interests?
2) Compare the purposes, advantages, and disadvantages of mini-parks and maxi-parks; of natural or "green" parks and artificial or "plastic" parks.

3) How are sites for parks chosen, especially in Charlotte? How are costs determined? How s the money set aside?
4) How much manpower, and how much money does it take to keep up our city's parks?
5) Why do you think people destroy and vandalize in parks? How much does park vandalism cost Charlotte in a year? What can be done to offset vandalism in open parks?
6) Besides providing the park areas and facilities, our Park & Recreation Commission heads a number of recreational programs and services. Find out about them.
7) Who could use the original western types of parks (often called preserves)?
8) To what time and place in western history can the concept of public parks be traced?
9) Where were the first community parks in the U. S.?
10) What is the attitude toward parks in other specific cultures? How do the parks reflect the cultures?
11) Find out about and describe a few of the world's most famous parks.
12) How does our system of national parks work? How and why are they designated? Are there any threats to this system?
13) How does our state park system work?
14) What is an official wilderness area? What regulations control it?
15) Why is the conservation of some wilderness a vital human concern?
16) What are amusement parks? To what can their history be traced? What are some of the most famous ones in our country? What changes may our new local amusement park bring to the Charlotte area?
17) What different jobs and professions are available within the different park systems? What do they entail? What different training and educational requirements are there?
18) What would it be like without any parks at all?

PATENTS

Resources

Mr. Floyd Gibson Parrot, Bell, Seltzer, Parker and Gibson 1211 East Morehead 377-1561	Will speak to classes as a patent attorney.
Mr. Dalbert Shefte Richards, Shefte & Pinckney Cameron-Brown Building 332-8576	Will be glad to provide speakers and information on patents.

An Exercise for the Student

A remarkable American inventor is alive and very busy right now. Find out all you can about William Lear, who counts the Learjet among his achievements. What was his educational background? How does his mind work? What inventions has he had patented over the years? What is his current research directed toward?

Questions for Inquiry

1) Why does the patenting process require a wholly specialized, separate field of law?
2) How are inventions appraised for market potential?
3) What besides a new thing can be patented if it meets requirements?
4) What is the common requirement of all patentable ideas?
5) Are flowers or plants ever patented?
6) When and what was the first patent issued in this country?
7) Learn something about the history of patents in the U.S.
8) How did the term "flash of inventive genius" cause a lot of trouble for hardworking American inventors?
9) What procedure should a person follow to apply for a patent?
10) In what ways has the process of invention changed with the advance of technology?
11) When an inventor is employed by a business, does his invention belong to him or to the business?
12) Who are some of our best-known contemporary inventors -- and what creations have they had patented?
13) Discuss many of the small inventions, such as safety pins and bandaids, which have become household words and household necessities. Try to find out which ones were patented.
14) Try to find out about old, discarded inventions that might deserve a second try.
15) What are some of the most unusual inventions that have been issued patents?
16) See if there is some way to learn about some of the weirdest contraptions people have tried unsuccessfully to have patented.
17) What is a copyright? What is a trademark? How are copyrights and trademarks similar to patents? How are they different?
18) What are some timely wide-open fields for invention right now?
19) What would you like to be able to invent?
20) How are patents handled in other countries?

PETS

Resources

City of Charlotte Animal Shelter Mr. W. B. Roberts 374-2919	Conduct tours and will provide speakers.
County of Mecklenburg Animal Shelter Mr. H. J. Overcash 374-2062	Will be glad to arrange conducted tours.
Mecklenburg County Humane Society 101 Wrenwood Lane Mrs. George S. Rawlins, President 366-7580	Will be very glad to offer information and speakers to the classroom.

Charlotte Dog Training Club Mrs. Joe Patton 523-4165	Will be happy to arrange speakers and demonstrations.
Piedmont Kennel Club Mrs. Betty Schachner 366-1710	Will provide speakers.
Mecklenburg Hounds Tom Short Road Mr. Edgar Cato Master of the Hounds 525-8510	Tours arranged of show grounds.
Mecklenburg County Veterinary Medical Association 118 Atando Avenue Dr. Gil O. McKee, Jr. 375-7564	Will provide speakers to classes and arrange tours of facilities.
Charlotte Veterinary Hospital Albemarle Road Dr. Curtis Fincher 537-2272	Will provide speakers to classes on how to care for small animals; also arrange tour of facility.
Clear Creek Animal Hospital 9301 Albemarle Road Dr. Lewis Puckett 537-8405	Can speak to classes on a limited basis on the care of large animals, and arrange tour of clinic.
Parker Veterinary Hospital 2820 Wilkinson Boulevard Dr. Lynn Parker 399-8304	Can demonstrate to classes how to help a hurt animal; needs advance notice.

An Exercise for the Student

Keep some classroom pets. Let everyone help care for them and observe them. After a time each student could make a written or oral report telling what he has learned about pet care; about biology; about the animals' needs, likes, "personalities," and feelings. Ask each one whether anything he has learned about animals carries over into human relationships.

Questions for Inquiry

1) How old is the practice of keeping pets?
2) What psychological factors do you think cause people to have pets?
3) Besides pets that are common to most cultures, what are some unusual ones (to us) kept regularly in other parts of the world--India, Japan, or Mexico, for example?
4) What are some of the most unusual animals that have been kept as pets?
5) Are wild animals sometimes tamed for pets? Are there legal restrictions on this practice in some places? Why?
6) Besides companionship, what other useful purposes do pets serve?

7) How are some animals used to perform seriously needed functions for human beings?
8) What animals make good pets in the schoolroom?
9) Find out about some famous pets of famous people, past and present. Do any of them have especially interesting stories?
10) What laws and organizations try to protect animals from human cruelty? Why do you suppose some people would want to make an animal suffer?
11) How is our community protected from animal-caused nuisances and dangers?
12) How should you go about choosing a pet wisely? Learning to care for it right?
13) Did you know a bird can learn to walk a tightrope? Or that a mouse can learn to dance? Find out about other interesting tricks animals can learn.
14) What are the pros and cons of the zoo movement?
15) What jobs and careers are available for animal lovers? How would you describe a good veterinarian? A good veterinary hospital?
16) What classics in art, music, or literature have been inspired by the animal kingdom?
17) Pretend that mankind could survive without other animals, and that humanity is alone on the planet. What would like be like?

PHARMACIES

Resources

Poison Control Information Center
Mercy Hospital
Dr. Gilbert Colina
334-6831
Will speak to classes.

Eckerds Drugs
Mr. Jack Dawson, Director of
Professional Services
372-8700
Will provide speakers.

Walker Drugs
225 Hawthorne Lane
Mr. Dan Lemelin, Co-Owner
376-6437
Will speak to classes on the small druggist.

An Exercise for the Student

To illustrate the many-sided nature of medicines -- purpose, side effects, risks, need for testing, legal and moral responsibility of drug-makers-- do a study of the thalidomide story. What was this drug for? What were its harmful components? What happened to the testing processes that might have provented tragedy? What were its tragic effects? How out of proportion were these awful results to the purpose of the drug? Where was the drug used most? Were American companies involved? What legal results have been obtained in lawsuits? What were the legal and moral responsibilities of the producers of thalidomide? What has this experience taught drug companies? The public?

Questions for Inquiry

1) See how far back you can trace the history of drugs. Tell some of the interesting natural drugs obtained through trial and error and used for specific purposes in different cultures, such as Africa, China, Egypt, Rome, Indian America, Colonial America. Name some of these natural substances that have been proven to have scientific validity in the light of present knowledge. Do you think further research will find value in other folk remedies? Is it worth pursuing?
2) How have changes in medicines, supplies, and equipment altered the pharmacist's job from what it was thirty years ago? Sixty years ago? Has the burden of responsibility diminished or enlarged or changed in character? Explain.
3) Learn some pharmaceutical terminology and symbols. What weight and measuring system is used? What is the difference between generic names and trade names?
4) How are research and testing for new drugs carried out under Federal Drug Administration regulations? How does it happen that unexpected disasters sometimes occur despite these controls? What is the FDA's record? Is there any situation you can think of when haste and inadequate testing in the release of a new drug might be justified?
5) Is the FDA able to control and test adequately, given the increasing volume it has to deal with?
6) How much responsibility does a pharmaceutical company bear to the public for the drugs it develops and produces?
7) Does overproduction of certain drugs beyond all possible legitimate demand contribute to the drug abuse problem in the U. S.? What are drug companies' responsibilities here? How can they also combat the stealing or hijacking of large drug supplies for underground markets?
8) Do all drugs affect the systems or functions of the body in some way? Where is the line drawn between helpfulness and harm?
9) How does a physician decide when the risks of a potent drug's side effects are outweighed by the need for the drug?
10) How are physicians able to use very poisonous substances in beneficial ways? What are some of the most toxic drugs prescribed?
11) What is the difference between over-the-counter drugs and prescription drugs? Who decides which will be which?
12) What causes the wide divergence of prices for the same drug under different trade names?
13) How great is the range of quality in similar drugs made by different companies?
14) What safeguards do pharmacists take against making mistakes? Against aiding drug abuse?
15) Compare the availability and the control of medicine in other countries to its status in ours.

PHYSICAL FITNESS

Resources

YWCA
3420 Park Road
Miss Mary McInerney
Associate Executive Director
525-5770

Will provide speaker.

YMCA 400 East Morehead Mr. William Brincefield Assistant Physical Director 333-7773	Will provide slide presentation and demonstration.
Cosmopolitan Health Spa 727 North Sharon Amity Road Mr. Frank Ellis, Manager 364-1771	Physical Fitness Demonstration.
Weight Watchers of North Carolina 1701 Montford Drive Mrs. Marge Glanzman Secretary and Administrator 527-1737	Will provide speakers.

An Exercise for the Student

Take on each of the following identities, one at a time, and write (or act out orally) a definition of physical fitness from each viewpoint: a doctor, a physical education teacher, a mother, a dietician, a businessman, a student, a trainer for the Olympics.

Questions for Inquiry

1) Are health and physical fitness the same thing? What relationships are there between them?
2) Describe the mental and psychological effects possible from physical fitness--or the lack of it.
3) What are some of the most common deficiencies in our every-day life that detract from our fitness? How do these deficiencies differ in varying age groups?
4) Are Americans as a group "physically fit"? Give reasons to support your answer.
5) If you were a newcomer to this country, what conclusions might you reach about the general fitness of the population if you based your opinions solely on a week's television commericals? ("I can't believe I ate the whole thing!") A week's regular television programming? Several days of watching people in a local shopping center? A week of observing students in all grade levels of school? A few days of watching--and listening to--business men and women at lunch?
6) How many aspects of health do you think are included in the term physical fitness?
7) Do schools stress physical fitness or some aspects of it? What programs are in effect here? What others are needed? Do girls get as much physical fitness training as boys? Suggest ways the schools might do a better job in this area.
8) What adverse effects on physical fitness does smoking have? Alcohol? Drugs? Different viewpoints on this question might be interesting, too. For instance, how would a coach be inclined to answer? A doctor? A foreman?
9) What are "empty calories"? Are the diets of young people today overloaded with them?

10) Discuss the rising interest in gymnastics today. What do you know about Olga Korbut?
11) What nations, today or in the past, have stressed physical fitness as a national policy? What have their reasons been?
12) Should our nation put more emphasis on physical fitness? If so, how?

PHOTOGRAPHY

Resources

Mr. Phil Aull CPCC Instructor 332-2211 or Mr. Bob Welch CPCC Instructor 376-1472	Will be glad to speak on commercial photography.
Mr. Gordon Schench Member: American Society of Magazine Photographers 332-4078	Will speak on photographic development and process.
Mr. John Daughtry The Charlotte Observer 374-7070 (Please leave message)	Will speak on photography and the arts.
Mr. Jack King Van Ness Cameras 1809 Commonwealth Avenue 375-8453	Will provide speakers on photography in general.
Mr. William E. Hannon Pictorial Engravings 417 East Trade Street 333-0118	Will provide speakers and welcome tours.
Eastman Kodak 501 East Morehead Street Mr. William Seely, Staff Assistant 377-4585	Lecture (high school level).

An Exercise for the Student

Make a pinhole camera, and tell how it works. Get at least one good finished print with it. How is the picture different from one taken with a regular camera?

Make a collection of pictures cut from magazines and newspapers. Choose photographs that tell stories. Try telling the same stories in words. How many words does it take? Is the story better in words or in pictures?

Questions for Inquiry

1) Most of us are so used to seeing photographs that we probably take them completely for granted. Try to imagine all the ways our lives and what we know would be different if there were no such thing!
2) Besides its obvious uses in journalism, television and movies, portrait and snapshot-taking, photography plays important practical roles in many other parts of modern life. Tell about its uses in advertising, business, industry, science, sociology, national defense, -- and every other way you can add to the list.
3) What are some of the ways you and I may benefit from the combination of space and photography? What things are we learning about our own earth this way? About the solar system and outer space? What is infrared photography? Let your imagination go wild on all the possible futuristic uses of photography!
4) Explain how composition, balance, and lighting are so important in all good photographs. Use examples.
5) When is photography an art form? What are some of the methods used to get special artistic effects (a) in taking the picture, (b) in developing and printing the picture?
6) What moods do different lines and shapes help to create? Use examples!
7) Are there recent technological developments that make photographic art more exciting and versatile?
8) Is photography for magazines and newspapers a very competitive field? Would this work appeal to you? How might it be exciting?
9) What other careers are available in photography?
10) How expensive can photography equipment be? How much can be done with just simple, inexpensive equipment?
11) There have been many famous photographers--war correspondents, photographers of the natural world, portrait-takers. Find out about some of them. Get books of their pictures from the library and study them.
12) Can you think of particularly famous photographs in the last few years--ones you may have seen reproduced many times in different places?
13) What magazines have specialized in telling stories with pictures? In showing us interesting sights from remote or distant parts of the world? In recording current history in picture form?
14) How did the earliest cameras work? Trace the development of cameras through their different stages.
15) What are some of the newest kinds of cameras and camera equipment? Will their effects be any different from those of the ones we already know?
16) How is being a television or movie photographer different from taking still pictures? Does one ever lead to the other?
17) Find out some things about those famous camera names Eastman and Kodak.
18) What is the smallest thing ever photographed? How was it done? What is the largest? How?
19) In how many different ways do you think photography is able to change the course of history?
20) What is microfilming? Find out about some of its many and varied uses.

PLASTICS

Resources

Benco Studios 201 West Worthington Avenue Mr. Ted Bennick, President 377-4925	Will provide speakers.
Sewell Plastics 4915 Hovis Road Mr. B. J. Dodson Administrative Vice President 392-4176	Will arrange tours of the plant.
Rexham Corporation Matthews Plant Personnel Manager 847-9171	Tours can be arranged of plant which deals with plastic laminations.

An Exercise for the Student

Make a labeled display of common objects made of different forms of plastics. Decide which articles would not exist without plastics. Decide what the others would be made of if there were no plastics yet. How costly would they be? How available to the public? If you wish, take the project even further: tell whether each plastics item was made by molding, casting, laminating, extrusion, or calendering; indicate what other categories of plastics each object may fit, such as hard plastics, soft plastics, plastics fibers, etc.

Questions for Inquiry

1) How long have plastics been in existence? What were the forerunners of plastics? What were the disadvantages of these forerunners?
2) Find out what the first few successful synthetic plastics materials were.
3) How much has demand urged along the development and diversification of plastics? How have new plastics forms created demands?
4) What natural materials can plastics copy? What are the advantages of the plastics over the natural materials? Are there disadvantages?
5) What are some of the many characteristics that plastics can be given?
6) How can one plastics product--say, nylon--make both wispy women's lingerie and tough machinery parts?
7) Trace manmade synthetics backwards to their original sources in nature.
8) Think of some of the things you have that might be too scarce and expensive to own without plastics.
9) Make a list of plastic articles in your home or schoolroom.
10) Discuss the amazingly wide use of plastics: (a) in industry (b) in textiles (c) in home building and architecture (d) in medicine (e) in space (f) in science (g) in defense.
11) What new plastics have been developed for space exploration? What everyday uses have also been found for these?

12) Find out about careers available in the plastics industry. How wide a range of talents and interests and educational backgrounds might find satisfying positions in it?
13) Does the manufacture of plastics cause pollution problems? Are there problems caused by disposing of the products themselves? Are solutions to any problems being searched for by the industry? What are consumers' responsibilities?
14) Try to imagine future changes in plastics and future uses for plastics products. Do you have any ideas of your own?
15) How are plastics used in art and art hobbies? Get a hobby kit and work with it in class.
16) Pick a time in history when you would like to go back and introduce some form of plastics. Why? What would you like to happen? What would people think of this magic substance? How about you--would you be worshipped? Crowned? Burned at the stake? What might happen to the culture of the times, and the art?

PLUMBING

Resources

P. C. Godfrey Mr. Paul Jackson 334-8604	Speaker.
Plumbers and Steamfitters Local Union #96 2121 Commonwealth Avenue Mr. Tony Kiriakes 333-4098	Will provide speakers and information on all aspects of plumbing, heating and air conditioning and arrange on site tours when possible.

An Exercise for the Student

Show how to use at least five important plumber's tools.

Draw a diagram of the hot-and-cold water system in your house or of the plumbing drainage system. Include in your design an explanation of how you protect the supply system from freezing or how you decide where drains and vents are put.

Questions for Inquiry

1) Most of us probably think of plumbing as a fairly modern invention, but the history of plumbing systems goes far back into history. Find out about the plumbing of the ancient Egyptians, the Roman Empire, the Middle Ages, and the United States in the late 1800's.
2) The word plumbing originated from the Latin word for lead, because the Romans used lead pipes to bring their water in. Do you suppose this had anything to do with the decline of the Roman Empire?
3) Why would you never want to fall into the moat of the medieval castle!?
4) Compare today's plumbing to the earliest indoor plumbing in our country.

5) What are the newest trends in bathroom and kitchen equipment? How are they being influenced by affluence? Search for comfort? Aesthetics? Common sense?
6) What plans may be in the making for still more unusual fixtures in the future?
7) Plumbing systems have two completely separate sets of pipes--one for clean water and the other for dirty. It's obviously a must that "never the twain should meet." What devices and designs keep them separate? What city laws are there to insure this is done?
8) Find out the relationship between the plumbing term "cross connection" and typhoid fever.
9) Has faulty plumbing in one building ever caused a city-wide epidemic in this country?
10) Why do you often find the plumbing fixtures of a house grouped together, either against a common wall, or above and below each other?
11) How do you learn to be a plumber? How big is the demand for plumbers? What kind of income is possible? How much plumbing work is on a contract basis for new buildings? Is the plumbing in huge buildings kept up on a contract basis?
12) What routine plumbing jobs could anyone learn to do with a few simple tools?
13) On what basic principles do faucets work? Commodes?
14) When and where did plumbing become a luxury available to the common man? In which parts of the world is this still not true?
15) Can the supply of water in the world be increased, or is it a fixed amount? Do you think you will ever see a water shortage? Did you know that a leak the size of a pencil lead wastes 500 gallons of water a day?
16) What methods are being developed to fight pollution caused by people's water-borne wastes? Find out what imaginative suggestions have been made for the future in this field.

POLICE

Resources

Community Relations Bureau Anyone who answers 374-2331	Will act as the main co-ordinators for the entire police department. They offer such things as tours of the crime lab, demonstration of Snoopy, the helicopter, and speakers on a variety of topics.

An Exercise for the Student

To foster group co-operation, give each child a different clue you have picked from a whodunit -- and let them solve the mystery.

Questions for Inquiry

1) What would Charlotte (or any city) be like without police?
2) Have there ever been times or places in history without some form of law enforcement?

3) What are some forms police work may take? What ranks are there in our police department? What squads may policemen be assigned to? Do these assignments change periodically?
4) What special training is required for law enforcement officers? How have these requirements changed over the years? Is the present training enough? What more would you require?
5) Write a plan for your idea of an ideal police department -- its setup, policies, training requirements, educational requirements, salaries, etc.
6) What special problems and disadvantages are inherent in a policeman's work? Could they be lessened?
7) What are some of the everyday concerns of policemen, besides crime?
8) Are the roles of police changing? The attitudes? The images?
9) How are the public's attitudes towards the police changing?
10) Do you feel the police are your friends or foes? Why?
11) Scientific progress continues to aid in crime solving. Name some specific advancements of recent years. How is photography used in crime solving and prevention? Chemistry? Physics? What research is being done on possible future advancements in crime detection?
12) What legal and constitutional restrictions control police officers? If adhered to, how do these help to protect the public? The police? How might they be a hindrance? Do the advantages outweigh the disadvantages? Why?
13) Why is "one rotten apple in the barrel" especially detrimental to a police force? What are the best measures a department can take to preserve public confidence in such cases?
14) What are some of the changes brought about in police work in our country by changes in society and technology? For instance, how have automobiles and mobility of our people affected the work?
15) Is it legal for police to go on strike? Should it be?
16) Find out about policing systems in other countries. How does organization, authority, equipment, policy, image, status, etc., differ?
17) Study law enforcement at certain times in history -- the Roman Empire, for example, or the Wild West, or the thirteen colonies.
18) Where in the world do you find Secret Police systems? How do they work? Why is such a concept contrary to democracy?
19) Have a police officer share with you his log of a typical day.

POLITICAL PARTIES (Major)

Democratic Party for Mecklenburg County
504 South Tryon Street
Mr. Myles Hanes, Chairman
376-6527

Will provide speakers and help organize teen Democratic clubs.

Republican Party for Mecklenburg County
917 East Morehead
Mrs. Nan Kent, Executive Secretary
334-0243

Will provide speakers and help organize teen Republican clubs.

An Exercise for the Student

Create two imaginary parties. Have conventions for each, adopting platforms (humorous, to liven it up) and nominating a presidential candidate. Follow through with a campaign and election.

Questions for Inquiry

1) How have the Democratic and Republican parties changed over the years of their existence? What are the basic differences between them today?
2) What is the American party?
3) Describe other political parties that have at some time had an influence in our country.
4) What does "grass roots" mean?
5) How are parties organized? How do they function at a precinct level? How would someone get started in party work?
6) What advantages do members of a party have over Independents?
7) Is our present system for nominating a President a good one? How much choice do you feel the voter has?
8) How do nominating conventions work? How do hopefuls get votes? What would a national primary be like?
9) How much is an elected official obligated to his party? How free is he to do the best thing or make the best appointment as he sees it? Which is more important, qualificiation for an appointment or party affiliation and loyalty?
10) "Politics is a dirty business"--why is it dangerous to believe and accept this? Think of all the things that might happen if we just shrug this off as a fact to be left alone.
11) What did the Greek philosophers say about politics and honor?
12) How closely is the moral climate of a country related to the integrity of its executives and legislators?
13) Compare the one-party system, the two-party system, and the multi-party system. Which parts of the world use each one?
14) Why is compromise at the heart of good government?
15) Suppose all the liberals of both major parties handed into a new party, and all the conservatives did likewise. In what ways would our political climate change?
16) How can a student who may wish to enter politics begin preparing for it while he is still in high school, or even grade school?

POST OFFICE

Resources

Mr. Kenneth Lineburger or Mr. Gordon Brandt Customer Service Representatives Extention 619 or 680 372-0711	Will arrange speakers with slide presentations.
Mr. Dale Perry Assistant Sectional Center Manager of Mail Processing Extention 635 372-0711	Will arrange tours for 4th grade students and up.

An Exercise for the Student

Divide the class into letters (stamped and zipped, of course), packages (marked Fragile or This Side Up), postal workers and machines. In as elaborate or simple set-up as you choose, take the "mail" through all its steps from mailbox or post office to destination.

Trace a lost letter backward over its logical route to some ludicrous spot near the source. (Like a husband's pocket)

Questions for Inquiry

1) What would our country be like without a postal service? Would there be a country?
2) What different careers are there available with the Post Office? What procedures must you follow to become an employee of the Federal government?
3) To what extent are machines now doing postal jobs that people used to do? What are some of the machines? How much more automation is possible here?
4) Postmen with regular routes are out where people are all the time. Do many take the opportunity to help out in emergencies and to be friendly in the good old tradition of neighborliness? Interview some postmen. Find out how their work has affected the way they think about people. How would they evaluate their own city, the neighborhoods they visit? Do they get a "feel" of neighborhood personality? Of attitudes toward current events? Of political climate? Is the world really getting as cold as some say--or are people still real and caring at the grass roots level?
5) What are some of the current problems with mail delivery? How efficient is the mail service today compared with other times in the past?
6) How have rising costs, improving technology, and increase in volume been handled by the system?
7) If fuel shortages keep increasing, how will the postal system be affected?
8) How are the new private mail delivery services affecting the government's system? Compare the efficiency of the private companies and the Post Office System.
9) How about "junk" mail--circulars, advertisements, etc.--is it overloading the system ? Does it get a special deal at the expense of first class mail? Is it ever an invasion of privacy? How could you get your name removed from the lists of mass mailers?
10) What procedure should a person who is the unwilling receiver of threatening or obscene mail follow?
11) Are chain letters ever legal? Advisable? What is their effect on the mails?
12) What happens to undeliverable letters and packages?
13) "There is no mortal thing faster than these messengers. . .neither snow nor rain nor heat nor gloom of night stays these couriers from the swift completion of their rounds." Air mail? No. The messengers of the Persian postal system, 500 B.C. Trace the history of postal services back to the earliest times when messages were not even written down.
14) When and where was the first postal system that was used by common men?
15) What is important about the date 1782, concerning mail and freedom?
16) Compare our postal system today with that of other countries.
17) What kind of future do you foresee for the U. S. mails? Do you feel private enterprise could do better? Will a shared load between government and private companies be a happy medium?

18) What other Federal agencies and services than postal are located in the Post Office?
19) Explain the new organization of the U. S. Postal System.

PRINTING

Resources

Printing Industry of the Carolinas 301 Hawthrone Lane Mr. Bill Treadaway 334-6444	This agency, the Chamber of Commerce for the Printing industry, can arrange any of the following and more: General commercial: Synetics, Inc. Mr. Don Reid Binding: Delmar Printing Mr. Bruce Bittich Washburn Printing Mr. Don Davidson Graphic Arts: Dillard Paper Company Mr. Joe Hammond
Prestige Graphics Mr. Charles Jacobs, Jr., Owner 523-4807	Will arrange tour of facilities for groups of fifteen and provide speakers.
Pentes, Inc. 1626 East Boulevard Mr. Jack Pentes 375-1756	Will arrange tours for high school art and graphics students. Also has a slide presentation which will be made available.

An Exercise for the Student

Set up a print shop! Gather poster paints, a variety of different papers, and a whole menagerie of objects--natural and manmade--to experiment with in making prints. Then let imagination take over. Some suggestions for natural objects are different kinds of wood; seed pods; clay shapes, engraved with a sharp point or just moulded; or a variety of fruits and vegetables, cut in half--potatoes, onions, carrots, apples, citrus fruit, celery stalks, radishes. Even a whole fish can be painted and used to make a print! (Phew). Manmade objects--string, bottle caps, kitchen sponges, forks, plugs, hair rollers, corks--are as unlimited as the imagination.

Questions for Inquiry

1) What were some of the forerunners of mechanical printing?
2) Why did the first version of movable type, experimented with hundreds of years before Gutenburg, never catch on?
3) Describe Gutenburg's famous printing machine.

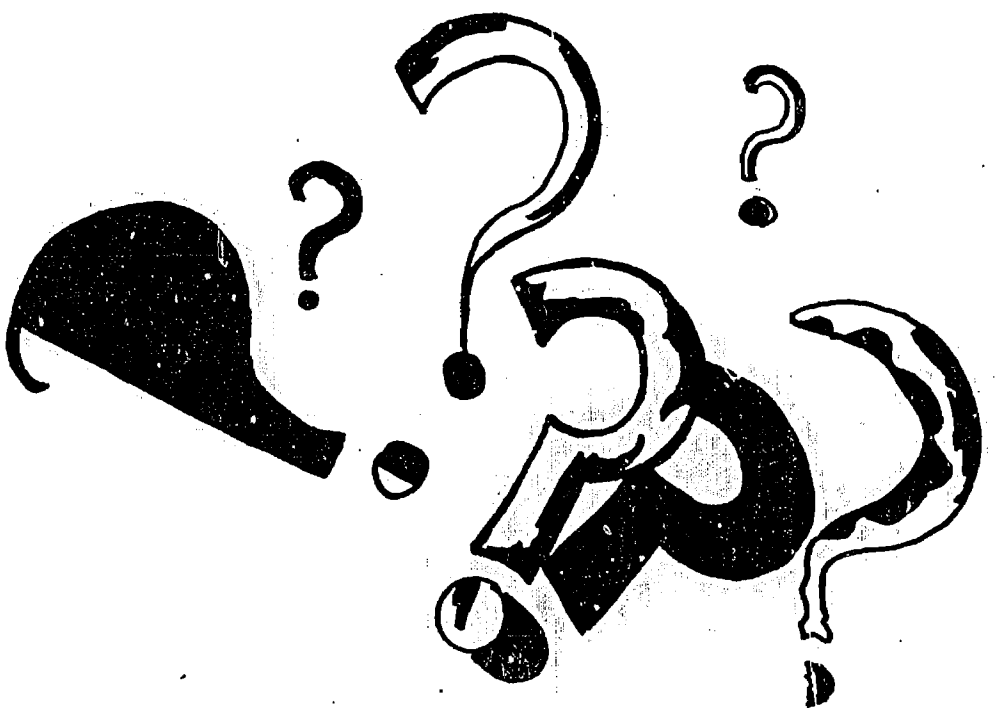
4) What were some of the immediate impacts of the printing machine? How did it affect the paper industry? What were some of the first reactions of the public?
5) Why was the invention of mass printing a landmark for the common man?
6) How did it change the course of history?
7) How did the early printers learn their skills? What kind of status did they have? What kind of working conditions?
8) Trace the history of printing in our country.
9) Follow the improvements that have developed in the printing process over the years since Gutenburg.
10) The printing industry today reflects the explosion of technology in all directions and the relationships that develop from it. How did paper and printing growth affect each other? How is photography a vital part of modern printing processes? Computers? Chemicals? Plastics? Electricity? Electronics?
11) Describe the three kinds of printing and the kind of press needed for each.
12) Follow a book, magazine, or school annual through the printing process.
13) How would you go about getting your own Christmas cards printed?
14) How do you look for qualities of excellence in printed work? Is the producing of beautiful printed material something of an art?
15) How do modern printers learn their skills?
16) What are some of the numerous careers available in printing? What particular work in the industry would appeal to those interested in (a) photography? (b) mathematics? (c) English? (d) machinery? (e) electronics? (f) chemistry? (g) science? (h) art?
17) What sort of wages are available in printing?
18) If you had a position in the printing industry, why would your job and wages be especially secure, even in an unstable economy?
19) In the art world, what methods are used to produce prints? Look up reproductions of some famous prints. Who were the artists? What methods and materials did they use?
20) What are some of the essential differences between prints and paintings?
21) In prints, how are lines of nature used to enhance men's art?
22) What is predicted for the future in the world of printing?
23) Write a story in which you enter a time machine and take the printing press back into a period of history -- the Roman Empire, perhaps, or Athens at its height; an Egyptian dynasty, the Mayan culture, or the days of the Norman Conquest of England. Let your imagination loose with the results. How would you change history? What might happen to you? What might you find when you returned to your own time?

QUESTIONING

In an effort to encourage the student to think for himself, to arrive at his own concepts and ideas, it is imperative that the teacher ask questions effectively. After determining for herself what she wants the student to learn and why, the teacher proceeds to decide what type of questioning would produce the desired results. In other words, know where you are going and decide which type (or types) of questioning will get you there.

For your consideration:

1) Use recall questioning to determine if the student has acquired specific factual information.
2) Use descriptive questioning to help the student organize, describe, and compare data.
3) Use explanatory questioning to guide the student toward an understanding of why people act in certain ways, or why events happen as they do.
4) Use synthesizing questioning to enable the student to show relationships among obviously unrelated data.
5) Use judgmental questioning to determine the student's facility in evaluating alternatives.
6) Use open-ended questioning to send the student into a world of limitless thought. Here, ideally, the student's answer is always correct and totally his own.



Resources

WBT
1 Julian Price Place
1) Office of the Manager
Jefferson Pilot Broadcasting Company
374-3946
2) Program Department
374-3751

Will arrange tours of the radio and TV studios or give information about the double-decker English bus.
Call for information concerning the programming or the making of commercials.

WSOC
1901 North Tryon Street
Sterling Wright
372-0930

Will provide visual aids, talks to classes, tours.

WAM-E
2401 Wilkinson Boulevard
1) Hap Pate
Sales
377-5916
2) Edd Robinson
Disc Jockey
377-1480
3) Cloyd Bookout
News
377-6397

Will provide visual aids, talks to classes, tours.

WAYS
400 Radio Road
1) Mrs. Stan Kaplan
392-6191
2) Jay Thomas
Program Director

Will provide visual aids, talks to classes, tours.

WGIV
2520 Toomey Avenue
Mr. Joe Sherman
Public Relations Officer

Will provide speakers and tours.

An Exercise for the Student

Listen to several different radio stations until you can identify the style and personality of each. How do they differ? What specific audiences are they trying to reach? Do the commercial sponsors vary with the audiences?

Make a simple crystal radio receiver set.

Questions for Inquiry

1) Man's need and desire for long-distance communication is age old. What were some of the methods he devised before the age of technology?
2) The development of radio came about gradually through different people in widely separated places -- learn about it!
3) How do radios work?
4) In what way and how fast do radio waves carry sound?
5) What major electronic developments have resulted from research for the improvement of radio?
6) The practical uses of radio technology are vital parts of modern everyday life. Find out all you can about how radio is a basic part of navigation, national defense, remote control of machines, weather forecasting, long-distance two-way communication, and space exploration.
7) What are the components of a radio broadcasting station?
8) How is a radio studio specially constructed for the control of sound?
9) What are the purposes of some of those awesome-looking dials and buttons on the panels of the control rooms?
10) What considerations go into the design, size, and location of a tower?
11) What is the difference between AM and FM? What are the advantages of each?
12) What are networks? Their relationships with affiliates?
13) What Federal regulations must radio stations operate under? What does a station have to do to renew its license?
14) Why is regulation of the air waves necessary?
15) Trace the development of radio programming to its peak as the news and entertainment media.
16) How has programming been changed by the super-rise of television?
17) Find out about some of the most famous programs in the history of radio, such as the on-the-spot coverage of the Hindenburg disaster or Orson Welles' too-real "War of the Worlds"!
18) How do radio stations make money?
19) Can there ever be reconciling between the station's need for money and minority tastes? (Will Charlotte ever get a classical music station?)
20) What are the many types of employment connected with a radio station?
21) Describe the art of announcing. What happens to a Southern drawl or a Midwestern twang? Is a regional accent a plus or a minus, in your opinion? How do announcers and disc-jockeys sometimes become personalities in their own right?
22) Find out about some famous "boo-boo's" that have been made!
23) What is the Emergency Broadcasting System and its role in disasters?
24) Compare radio in the United States to radio in other countries--programming, management, government control, importance.
25) What is "noise pollution"? How much does our use of radio contribute to it? Do we demand constant noise in our society? Why do you suppose some people feel uncomfortable or threatened by quiet?
26) What would your life be like without radio?

RAILROADS

Resources

Seaboard Coastline Railroad Company
901 Elizabeth Avenue

1) Mr. Tom Lynch
   Traffic Department
   372-9586
   — Can channel questions and provide films and material.

2) Mr. S. M. Sellars
   Assistant Superintendent
   of Operations
   424 West Second Street
   332-2112
   — Will give specific information over telephone. Will visit classes and discuss railroad operations.

Southern Railway
1914 North Tryon Street

1) Mrs. V. P. Lewis
   Ticket Office
   376-4416
   — Will give information on passenger service and set up class train rides from Charlotte to Salisbury or Spartanburg to Charlotte.

2) Mr. F. W. Keller
   Terminal Superintendent
   372-6615
   — Will arrange for tours of station and train yards.

An Exercise for the Student

Trains and railroads sparked the imagination of people. Make a class collection of railroad-inspired poems, songs, stories, legends of folk heroes, and paintings.

Questions for Inquiry

1) Even before the most primitive rails, what kinds of trains did man use to transport goods across vast territories?
2) What were the earliest rails like? What rolled over them?
3) Trace the snowballing development of the railroad from the time of its first power source to its peak.
4) Where and how did the railroads get the labor for laying thousands of miles of track?
5) What were some of the first public reactions to the steam-powered "iron horse"?
6) How did the railroads help carry the growth of the United States westward?
7) Just what are the actual parts of a railroad track? How is it constructed?
8) What is gauge? What is standard gauge in most countries? Why is Russia the biggest exception to this rule?
9) What are the features that make railways a unique form of transportation?
10) What is the difference between fixed plant and rolling stock?
11) What kind of cargo makes the most money for the railroads? What other kinds are there?
12) What is "piggy-back" freight? What are its advantages?
13) Freight cars must be custom designed for the type of cargo they will carry. Describe some of the most interesting kinds of cars.

14) Describe the signals and safety devices railroads depend on.
15) How have railroads dealt with their most difficult construction problems? (Mountains, gorges, etc.)
16) Look up the interesting biographies of the railroad barons. (Morgans, Vanderbilts).
17) What place has the railroad had in international relations?
18) Intrigue, romance, and local color have been connected with the railroads. Read about the hoboes riding the rails in the thirties, about the Osaka Special and the Orient Express, the sorrow of troop trains carrying boys to war.
19) What images do you see in your mind when you hear a train whistle?
20) Why has the railroad declined in this country? What causes are behind its financial straits?
21) How does the mileage of track in the U. S. today compare to that of 1920? Amount of freight carried? Financial condition?
22) What is AMTRAK, and how may it offset some of the railroad's problems? How much success has it had so far?
23) How many reasons can you think of for keeping the railroad system healthy? Can you think of suggestions for ways it might improve its condition?
24) Why are railroads ecologically sound?
25) What is train travel like in other countries? Why is there such a difference in the efficiency and use of trains here and in other countries?
26) Collecting of railroad memorabilia, from old lanterns and signs to cabooses, is growing. Try to look at such a collection sometime. There is at least one good one in the North Carolina mountains.
27) Where are some of the especially interesting train rides of today?
28) Study some types of railways as potential or actual means of rapid transit--the Chicago Els and monorails; subway systems such as San Francisco's, Mexico City's, Moscow's; possible rapid transit for Charlotte or between Charlotte and neighboring cities.
29) Learn about the careers available in railroading.
30) Technology has progressed far beyond the diesel engine and the traditional track. Scientists already project for the future such amazing things as magnetic-cushioned trains, air-cushioned trains, dual-mode vehicles for roads or rails, expanding use of high-speed overhead monorails, and most futuristic of all, coast-to-coast tube trains. Find out all you can about these trains that may be a common sight some not-too-distant day!

REAL ESTATE

Resources

Board of Realtors 225 South McDowell Street Mr. Ed Terry 372-0911	The Board of Realtors is an association of real estate brokers and their salesmen. One hundred twenty-five firms representing 900 people are members. Mr. Terry will answer questions on the real estate business.
Strawn & Bumgardner 3227-B Eastway Drive Mr. R. E. Cummings, Manager 535-335-	Can speak to classes about aspects of residential real estate.

Davis & Davis Realty Company, Inc.
American Building
365-0240
Mr. Burt Kennedy, Salesman
364-7460
Mrs. Jeannette Easson, Sales
537-6468

Can speak to classes about commercial and industrial real estate.

An Exercise for the Student

Read some of the real estate ads in your newspaper. Then pretend that you are trying to sell your house or rent your apartment and write an ad that would catch the eye of prospective buyers or renters.

Questions for Inquiry

1) What does the term real estate mean in its broadest sense?
2) What is the difference between real estate (or real property) and personal property? Is the line between the two always clear-cut?
3) There is an important difference between the sale or giving away of real estate and the sale or giving away of other kinds of property. What is it, and why is it?
4) What is a real estate broker? What other specialized fields are there in the real estate business?
5) How has the status of real estate work changed in recent years?
6) What courses of formal training are available here for those interested in the real estate business?
7) What is special about the term Realtor? How can a person become a member of the Board of Realtors?
8) What is the NAREB Code of Ethics?
9) What are real estate agents' fees based on? Why are they not based on the amount of work required to sell the property?
10) Why does the seller always pay the fee? When an agent takes a potential buyer on an extensive hunt for property, why does the buyer not pay the fee?
11) How does a real estate salesman avoid a built-in conflict-of-interest when he deals with two sides at once in a transaction? How can he get the best deal for both buyer and seller?
12) How are property values established?
13) What has happened to the value of real estate in the past ten years? What do you predict for future property values?
14) How and why does the real estate market fluctuate? What trends have come and gone in the last two decades? What are the current trends?
15) Do real estate firms ever act as landlords? What do tenants have the right to expect of their landlords? What do landlords have the right to expect of tenants?
16) How old is the real estate brokerage business?
17) How are real estate dealings handled in other countries?
18) Where are public records of ownership, surveys, property lines, etc., kept?

RECORDING

Resources

Arthur Smith Studios 5457 Old Monroe Road Mr. Vincent L. Miller 536-0424	Will answer questions about the recording industry. Tours are available.
Reflection Sound Productions 2315 South Boulevard Mr. Wayne Jernigan, Owner 377-4596	Will answer questions about the recording business. Tours can also be arranged of their studio.

An Exercise for the Student

Play a series of recordings of the actual voices and performances of famous people who are no longer living. Select from speeches of historical figures, musical compositions played by the composers, writers reading their own works, vocalists singing, actors performing.

Experiment with an ordinary school tape recorder, and see how many things you can do with it.

Questions for Inquiry

1) What must you do to get a song recorded? Who provides the musicians?
2) How do recording studios work with ad agencies to record commercials? Where does the background music come from?
3) What is the difference between studio recording and location recording?
4) When was the phonograph invented, and by whom? What different improvements were made in it, up to the present?
5) Trace the history of recording on tape. What was first used instead of tape? What steps of improvement has tape recording gone through? When was it first used in radio?
6) How does the phonograph work?
7) How does a tape recorder work?
8) Compare phonograph recording and tape recording--the process, fidelity, convenience, reliability, etc.
9) How is Hi-Fi recorded? How is stereophonic sound recorded?
10) Is it legal to record live performances from radio or TV?
11) What problems of copyright sometimes crop up in the recording industry? ("Dueling Banjos", for example!)
12) Why are tape recordings not considered reliable enough to be allowed as evidence in a court of law?
13) What is being done about the pirating of 8-tracks?
14) What are some techniques for improving the sound of a recording? For correcting bad spots? Can the method of recording also bomb out a record?
15) Study the growth of Nashville as a sound and as a recording center.
16) What are some of the modern electronic "music-makers" that provide far-out sounds for recordings?
17) Besides its importance as entertainment, what is the value of recording to history, To art? To business? To science? To education? To radio and television? To families at home?

RESTAURANTS

Morrison's Cafeteria South Park Shopping Center Mr. F. W. Kuhlemann, Manager 364-7552	Can arrange tours and possibly provide speakers on food service industry.
The Chateau 1414 East Morehead Mr. Forrest L. Collier, III Owner 372-7224	
World Famous Open Kitchen 1318 West Morehead and Gus's Original Forty-Niner Highway 49 East Mr. Dean Kokenes 596-0256	Will be glad to arrange guided tours of either restaurants.
El Villa 715 Providence Road Mr. Buddy Lindsay, Manager 375-5208	Even though they are not open during the day, they are willing to co-operate in any way.
Holiday Inn Restaurants 3815 North Tryon Street Mr. John Crisp 525-8373 or 525-8350	Can provide someone to talk to classes. Will also set up tours.
Shoney's Mr. Terry Young Mr. Dewey Graham 394-2367	Can give talks or arrange tours.

An Exercise for the Student

Have students look up and give reports on different kinds of (1) table manners, (2) utensils, or (3) dishes favored in various times in history and in various cultures of the world. (Could they have a special meal one day to try out a few of the imaginative examples of manners for fun?)

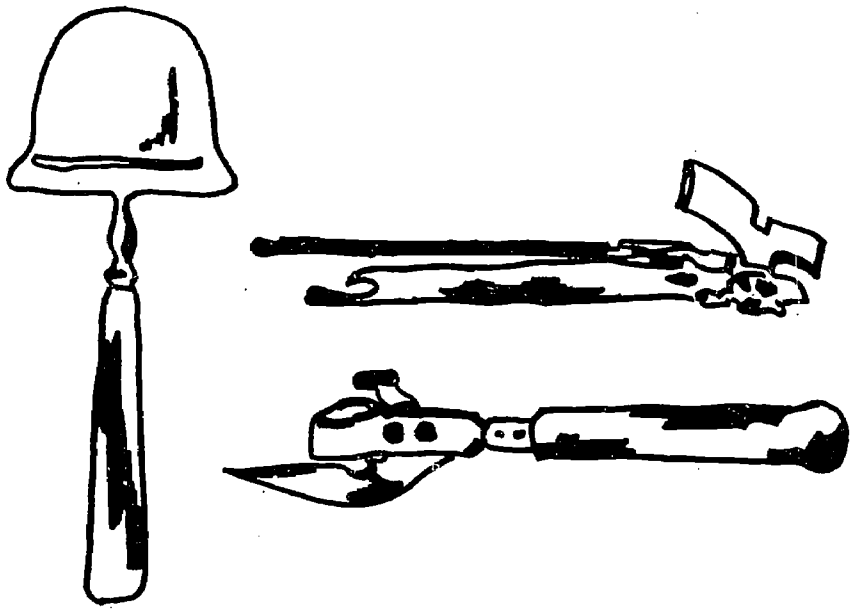
Have a simplified Roman feast or a Japanese meal.

Let the brave try some candied or dried "delicacies" from other cultures!

Questions for Inquiry

1) How did the pleasant relationship between conversation and food influence the development of restaurants as a business? How old is their history? What were restaurants before they became eating places alone? When did the word restaurant originate?

2) Find out about some of the famous eating places in history.
3) What are some of the most famous contemporary restaurants in the world? What specialites are some of them known for?
4) How demanding is it to run a restaurant? What are the biggest problems a manager must deal with?
5) Describe as many different types of restaurants as possible, from the expensive night club to the cafeteria to the automat, and all other kinds in between.
6) How does an owner decide what location or food specialty will best reach the clientele he wants to reach? Then how does he go about getting them to come it?
7) What different careers and jobs are available in restaurants?
8) How important is the service? How much do the answers depend on the kind of restaurant it is?
9) How do economic inflations and depressions affect the restaurant business?
10) What specialties are contributions or preferences of ethnic groups in our country?
11) What are some well-known specialties of different regions of the U. S.?
12) Name some American cities famous for a wealth of good food, either regional or not.
13) What are the most popular food choices of Charlotte restaurant goers?
14) What are some gourmet specialties of other parts of the world at which we in America would probably turn up our noses?
15) Are there American foods or eating habits that might raise eyebrows in other places?
16) How is food sometimes used as a way to status?
17) How do you read a fancy menu? Are menus ever misleading? What do you do if you don't know what certain dishes are?
18) What psychological factors might a smart restaurant owner keep in mind in (a) designing menus (b) planning color and decor (c) setting up table arrangements (d) training his waiters and waitresses (e) using lighting and sound?



SAFES AND LOCKS

Resources

Charlotte Safe and Lock 1625 North Tryon Street Mr. or Mrs. Ray Whitehead 332-4435	Will answer questions, can go to classes to speak and show some locks and keys.
Sandhills Safe and Lock of Charlotte, Inc. 7008 Rockledge Drive Mr. Bob Hogg 523-5481	Can bring antique (hand-crafted) locks to show to classes.
Carolina Safe and Lock 613 West Morehead Mr. Darrell Furr 333-2370	Can bring unusual locks to show to classes.

An Exercise for the Student

Many locks and keys throughout history have been given beautiful artistic designs. Do some research to find the ones that most appeal to you. Draw them. Then try designing a few of your own.

Questions for Inquiry

1) How old is man's need for privacy and security? Can you find ways he achieved it before there were locks, or even doors?
2) Who invented locks? When?
3) Describe--or draw--the Greek lock and key.
3) What innovations did the Romans contribute to the evolution of the modern lock-and-key?
4) Follow this evolution up to the present, including the newest types of locks developed in the past twenty years.
5) Describe different types of safes and locks used today. Tell how they work.
6) Think of all the places you can where safes OR locks are used. How are different types suitable to different purposes?
7) How are safes manufactured? How are locks and keys made?
8) When a key is lost, how is another made to fit the same lock? In what instances would doing this not be wise?
9) What work is available for someone interested in safes and locks? What does a locksmith do? Is there ever a legitimate demand for an expert in picking locks?
10) Must people who work with safes and locks be bonded? What does this mean?
11) What laws and regulations govern the business? Is there anything it is illegal to lock up?
12) How would you go about making your home as secure as possible? How secure are most newly built homes today?
13) Discuss locks and keys as works of art, as valuable antiques.
14) Try to find out about the use of safes and locks in other parts of the world. Are there places where their use is rare? If so, what measures do exist for protection and security?
15) Is privacy a right?
16) How much privacy is allowed under totalitarian governments?

SAVINGS AND LOAN

Resources

Mutual Savings and Loan 330 South Tryon Street Mr. Eric Clark or Mr. Lacy Sellars 333-6132	Will be glad to help in any way; can speak to classes and show filmstrips.
First Federal Savings and Loan 225 South Tryon Street Mr. Jim Adams or Mr. Moffatt Sherard 333-8401	Will cooperate in any way; can speak to classes.
Home Federal Savings and Loan 139 South Tryon Street Mr. John E. Boyd 376-8447	Can speak to classes about savings accounts, home loans, commercial real estate loans.

An Exercise for the Student

Collect and list adages that have to do with borrowing, saving--or not saving. ("A penny saved is a penny earned." "Eat, drink, and be merry, for tomorrow you may die." Etc.) Go to sources from other countries and cultures, as well as our own so that your list will reflect values and attitudes from around the world.

Questions for Inquiry

1) What different ways are there for an individual to save (from hiding it under the mattress to buying stocks)? Give some advantages and disadvantages of the methods you list.
2) How may an individual borrow?
3) Give several good reasons for saving. What are some good reasons to borrow?
4) How do businesses, corporations, and governments save? How do they borrow? Do their reasons for saving or borrowing differ from those of individuals? If so, how?
5) What is interest? What different types of interest rates are there? How are they figured?
6) What is the prime interest rate? Who sets it? How does it affect average savers? Lenders? Borrowers? How does it affect the real estate market?
7) What is a Savings and Loan Association? A Savings Bank? a credit union? What are their histories in this country?
8) How are modern retailers theoretically in the money-lending business?
9) What Federal and state laws regulate the borrowing and lending of money? What agencies enforce them? Describe what it might be like without any of these legal restrictions.
10) In what ways are we a country based on credit? Discuss the pros and cons of a credit-based society.
11) Do you think plain old cash will ever become obsolete?
12) What happens if a person or business doesn't pay its debts? What if it can't?

13) What are you doing when you buy a U. S. Savings Bond?
14) How much of the national debt is owed to individuals or businesses in this way? Is this a sound way to raise money? Do other countries do it?
15) What is the history of money-lending? Of its reputation as a business? Why did the money-lenders of the Middle Ages have such a horrible image?
16) Why was it historically against the Christian ethic to make money from money? Are there similar ethics in other religions? How do many Christians today reconcile traditional religious attitudes with modern money practices? Which ones are not reconciled?
17) What careers are connected with the savings and loan business?
18) What mechanical equipment has aided the business through the past? What changes have come from computer technology?
19) Think about the psychology of different kinds of savers. Does saving ever become an obsession? Why do some people refuse to try to save?
20) Compose some imaginary quotations from famous characters, real or fictional (Scrooge, for instance), on the subject of saving.
21) Report on a famous eccentric millionaire, such as J. P. Getty who keeps a pay phone for his guests, H. L. Hunt who carries his lunch in a paper bag, or Howard Hughes, who hides from the press, the world, and germs! Find out about their eccentricities. Has their wealth made them odd, or did their quirks make them wealthy?
22) Discuss the philosophies behind living for today or living for tomorrow and the middle grounds in between.

SECRETARIAL AND STENO SERVICES

Resources

Legal Secretaries Association Ivy Gulledge, President 372-3680 Lenora McGee 333-6112 Jean Dobbins 372-2800	Can visit classes to discuss secretarial work.
Kelly Services 230 South Tryon #565 Mr. Bill Neary, Manager 372-3440	Can come to classes to lead discussion.
Executive Secretaries, Inc. Juanita Sims, President 597-2201	Can provide speakers to classes.

An Exercise for the Student

Write a story based on a secretary making "just one little error." The error turns out to be something like losing an important letter or paper, typing $50,000 instead of $5,000, or forgetting to write down an appointment in her employer's appointment book. Weave as large a web of consequences as you wish!

Questions for Inquiry

1) What ways have you seen secretaries portrayed on television and in the movies? How much truth do you think was in the portrayals?
2) Describe some kinds and ranks of secretarial work.
3) How and why is the secretarial work organized differently in small firms and in large ones?
4) Give an example of the way office work is custom-shaped to each business.
5) What specialties require extra training or skills?
6) Why is a solid education in English grammar and arithmetic valuable to a secretary? What further training is needed?
7) What "tools of the trade" should a secretary be able to operate efficiently? How has this changed in the last twenty years or so?
8) How great are advancement opportunities for office workers? What is the secret of getting ahead?
9) What personal qualities does a secretary need to be successful?
10) What do you feel are the advantages of secretarial work? The disadvantages?
11) How can a secretary avoid falling into the rut of drudge work? How can she show initiative or creativity acceptably?
12) Learn about part-time or substitute secretarial work and the agencies that coordinate it.
13) Who provides steno services for travelers?
14) What are answering service jobs like?
15) Secretaries often deal with the public. Ask a few if their jobs have influenced their ideas about people. Are stereotypes reinforced?
16) Imagine what it would be like to be secretary to a few notables: President Nixon, Mrs. Nixon, Howard Hughes, Jackie Onassis, Ann Landers, Paul Newman, Alice Cooper -- to get you started!
17) Secretaries of famous people often make great contributions but always keep in the background. Do some research on the life of such a secretary.
18) Is secretarial work similar the world over?

SELF-DEFENSE

Resources

Young Men's Christian Association Morehead Street 333-7773 Judo: Mike Brawley 537-7988 - home	Will lecture and demonstrate. Will need area 10'x15' and wrestling mat.
Karate: Reggie Smith 525-0281 - office 527-2368 - home	Will lecture and demonstrate.
Kim School of Tae Kwon Do Karate 108 East Morehead Street Mr. J. U. Kim 375-5206	Can lecture and demonstrate.
Young Women's Christian Association Park Road Ms. Beth Fusaro 525-5770	Can give a limited number of demonstrations of self-defense for women to junior and senior high school girls.

An Exercise for the Student

Study the status of self-defense systems in Japan. What training is routine? What philosophy is at work? What is the history of self-defense in Japan? It would be especially good to have someone knowledgeable about Japanese life to help with this.

Questions for Inquiry

1) Dig into the long Oriental history of Judo and Karate.
2) Compare the purposes, methods, principles, and philosophies of these two self-defense systems.
3) What other variations of self-defense are there? What specialties in certain places?
4) What forms of self-defense are based on strength and tension? On relaxation and full use of the body?
5) Is self-defense a sport? A necessity? An art?
6) How much time practice, and experience does it take to become proficient at judo or karate?
7) How are levels of achievement designated in each?
8) At what level does it become practical for one to use judo or karate if needed in defense against an attacker?
9) Are there circumstances when even an expert would not use them?
10) Are judo and karate practical ways for women to protect themselves? Why?
11) What are some common-sense rules of self-defense, independent of systems?
12) In Charlotte, what courses in self-protection are offered?
13) Explain how systems like judo require complete skill, both mental and physical, as well as intense concentration and quick reaction.
14) How are judo and karate languages of the body?

SHOPPING CENTERS

Resources

Southpark Mr. Sid Bradley 364-4411	Will be glad to talk to classes about shopping center operation.
Park Road Shopping Center, Inc. Johnston Building Mr. Ralph Chandler, Manager 332-6467	Can speak to classes and reproduce site maps of shopping center for students.
Purser and Associates, Inc. 919 Norland Road Mr. Jay Culp 537-9583	Can talk with students about the field of shopping center developers.
John Crosland Company 145 Scaleybark Road Mr. Jim Coan 523-8111	Can talk with classes about developing shopping centers.

An Exercise for the Student

Try to follow the building of a shopping center. Watch its design and progress. Try to find out why the site was chosen, how much the construction is costing. Watch to see how many different companies you can detect being involved in the completion of the center. Within what legal frameworks must the whole plan fall? Where does the money come from to finance the construction? In what ways is the city involved? How is the land affected by the construction? The environment? The traffic flow? Continue to follow developments after the completion of the center.

Questions for Inquiry

1) Are shopping centers the modern counterpart of traditional native markets? As much or less so than downtown?
2) What variety of businesses are housed in them? Who decides what kinds of businesses will be included? On what basis?
3) What are the advantages and disadvantages of locating a store in a shopping center?
4) How are centers kept clean? Protected? Policed?
5) What are the responsibilities of shopping center managers?
6) What kinds of rules and restrictions are often placed on individual businesses within a center? What codes and laws control the center itself?
7) Search out the necessary statistics to compare two different types of shopping centers, such as Southpark and Tryon Mall: How much did they cost to build? What is their volume of business? What is the rental rate?
8) What different approaches have been taken to make our shopping centers aesthetically appealing?
9) Are the "personalities" of different centers innate in the design? Or are they also formed by the shoppers, and by the attitudes of the people who work there? Describe the "feel" or character of three different shopping centers.
10) How would you design a shopping center? How would you improve any one of our present centers?
11) Is the "all-under-one-roof" approach to business a new concept? Do you like it?
12) Is there a point at which size begins to defeat the original purpose of a shopping center?
13) What are the ripple effects of a new shopping center? How does it affect the traffic? The neighborhood? The environment? The economy?
14) Where do all these shopping centers leave downtown? On the other hand, what sort of problems would downtown have without the shopping centers?
15) How does the shopping-center boom affect the ability of a city to plan its growth? Does it encourage urban sprawl?
16) Are the builders of new shopping centers responding to our needs, or are our needs being manipulated by them?
17) What neighborhood services do shopping centers offer a community?
18) Which ones offer space for art shows, fashion shows, musical programs, meetings, and seasonal festivities? Is this sort of contribution offered free as a public service?
19) Show relationships between shopping centers and other areas of study included in this book: Architecture, Advertising, Business, Interior Design, Insurance, Investments, Investigation, Janitorial Services, Safes and Locks, etc.
20) What comes after shopping centers? Will the mini-city be the wave of the future?

SPORTS

Resources

WBT, WBTV Jim Thacker, Sportscaster 374-3711 or 374-3712 after 3:00 374-3529	Will be glad to answer questions and speak to classes when schedule permits.
WSOC, WSOC-TV Bob Hice, Sportscaster 372-0930	Will answer questions and speak to classes when schedule permits.
Carolina Cougars Bob Lamey 376-3681	Will speak to classes when schedule permits.
The Charlotte Observer Whitey Kelley, Sports Editor 374-7070	Can provide speakers to classes.
The Charlotte News Ronald Green, Sports Editor 374-7291	Can provide speakers for different age levels.

An Exercise for the Student

Initiate a study of the Olympics as a wonderful jumping off point to many subjects. Vary the approach and viewpoint to place emphasis on history (ancient and modern), tradition, geography and culture, games and competition, sportsmanship, training and physical fitness, the psychology of sports and athletics, or the brotherhood of man.

Sports Events in Charlotte

Basketball:	North-South Double-Header at the Coliseum Annually, during the season
	Carolina Cougars home games at the Coliseum
Football:	Shrine Bowl, at Memorial Stadium Annually, the first weekend in December
Golf:	The Kemper Open at Quail Hollow Country Club Annually, in late spring
Hockey:	Checkers home games at the Coliseum
Racing:	The World 600 at Charlotte Motor Speedway Annually, in lage spring
Tennis:	NCNB Tennis Classic at Julian Price Stadium, Olde Providence Racquet and Swim Club Annually, in April

All area college and school competition.

Questions for Inquiry

1) The list of Charlotte sports events would have been less impressive just a few years ago. How much do you think television coverage has contributed to its growth?
2) What professional sports activity did Charlotte lose in the last few years? Why?
3) Learn about our Coliseum and all its uses. Tour it. Get someone to come and talk to you about it.
4) Are sports and athletics more important than ever in this era of increasing leisure time?
5) What is the difference between sports and athletics?
6) How is the universal appeal of sports reflected in all communications media?
7) Think of many reasons for this age-old, world-wide appeal.
8) What two-way relationships are there between modern sports and the media? What was the coverage of sports events like before television?
9) What are spectator sports? Participating sports? Are both increasing in popularity? Explain.
10) Sports involve the whole person. Take your favorite sport and tell how it involves mind, body, and conscience. What lessons do you learn from it about yourself? About others? Do the lessons carry over to other parts of your life?
11) What can you learn about other countries by studying their sports and sports events? In what ways do sports reflect culture? Values? Customs? Terrain? Climate? Attitudes and philosophy?
12) Why are sports in the schools important? Physical education? Is the program extensive enough? What changes, if any, would you make in it if you could?
13) Compare amateur and professional athletes.
14) Interview someone connected with the Cougars about how a professional sports team is run.
15) Why do the best American professional athletes command huge sums of money?
16) Do some role-playing to illustrate the modern family problem of some members watching all the television sports events and others feeling neglected. Also act out some compromises.
17) What sports-connected careers are there for those intensely interested in sports but not talented enough to participate as professional players?
18) What similar interests are available in school for those of lesser ability or size?
19) To how great a degree can a person increase his athletic potential by determination and hard work?
20) Collect folk sayings from different sources that philosophize about sports, fair play, or fitness.
21) Try to capture the sheer beauty of an athlete in motion, in words, sculpture, paint, or photography.
22) How do sports help build bridges of understanding across cultural, ethnic, language, generation, or geographic barriers?

STAMPS AND COINS

Resources

Charlotte Coin Club Ray McGuire, President Williams Coin Shop 334-1992	Meets 7:00 Charlottetown Mall, the fourth Monday of each month. Can speak to classes and show coins, visits to coin shop welcomed.
Charlotte Philatelic Society Mr. Herman Baumann, President 372-3870	Meets first and third Sundays at 2:00 at 704 Louise Avenue. Can speak to classes and show stamps.
Eagle Stamp and Coin Ltd. 5652 Independence Boulevard Marian Litkenhour 537-8882	Can visit classroom with coin and stamp displays.

An Exercise for the Student

Working together, make a class collection of either coins or stamps. Learn about the people, pictures, or symbols on them. Study the phrases, and speculate why they were chosen. What is the metal content? What were some things the coins would buy at the time and place they were minted?

Questions for Inquiry

1) What can coins and stamps bring alive about history? Geography? Economics? Art?
2) What can the stamps or coins of a foreign country sometimes tell us about its culture?
3) When did the use of coined money start? What did people use before then? Do any people still trade without money today?
4) When and where did the use of stamps begin?
5) What kinds of government-issued stamps are there besides postage stamps?
6) Try to approach the history of a country through research on its coins and/or stamps.
7) What determines the price of coins and stamps for collecting? How are they appraised?
8) What small details can be most important to the serious collector but would not matter to those who collect just for fun?
9) What kinds of specialized collections are possible? Do most collectors zero in on one category?
10) Where are coins and stamps bought and sold?
11) What are first-day covers? Commemoratives? Are they ever valuable?
12) Learn about the active coin and stamp clubs in Charlotte.
13) Name some famous persons who have collected coins or stamps.
14) Where are famous collections the public can see?

SURVEYING

Resources

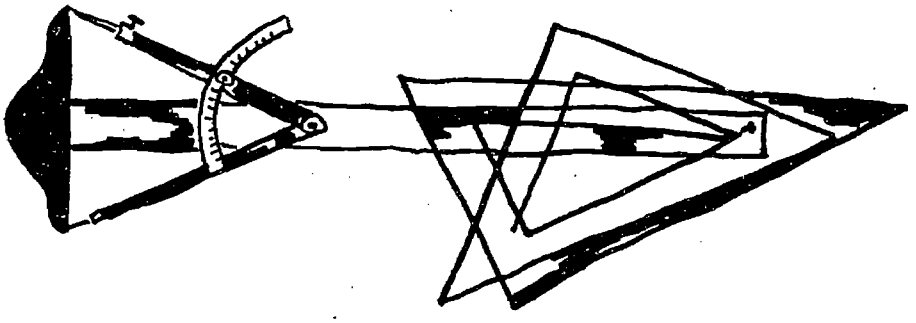
National Aerial Surveys 417 Hawthorne Lane Mr. John Lippard 375-5091	Will speak to high school classes and demonstrate some equipment used in photogrammetric engineering.
General Surveyors 210 Latta Arcade Mr. Howard McCauley 376-5763	Can speak to classes and bring some equipment.

An Exercise for the Student

Using a pocket compass and your measured pace, plot the city block you live on, showing streets and any outstanding natural features.

Questions for Inquiry

1) Try defining surveying in simple terms.
2) Surveying is old, old, old. Look up whatever you can find about its history and interesting recorded instances of its use in history.
3) Explain how surveying combines measuring, mathematics, geometry, and trigonometry to determine the exact position of certain points.
4) Do the points being plotted need to be on the earth's surface?
5) The surveyor would be lost without his precision tools. Describe the transit. Describe the surveyor's measure. How and how much is a compass used in surveying?
6) How old is the transit? What improvements have altered it in its history? How was surveying done before the transit?
7) Explain the differences between the following types of surveys: Engineering, underground, nautical, aerial and topographic, land, and geodetic. In what important ways is each used?
8) What knowledge, training, and skill is required of a surveyor? Why is precision a must?
9) In the 1800's Elisha Mitchell died in a fall while measuring Mt. Mitchell. What methods was he using to determine its height?



TAXIS

Resources

Checker Cab Company, Inc.
216 East Worthington Avenue
Mr. Dean Taylor, Manager
334-2875

Will provide classroom speakers and arrange tours.

Yellow Cab Company
317 South Poplar
Mr. Van Purser, Supervisor
332-8108

Small tours are welcome and speakers can be provided.

An Exercise for the Student

Report on the "taxicab army" defending Paris in World War I.

Questions for Inquiry

1) Tell how cab drivers are goodwill (or bad!) ambassadors of a city.
2) Have one to come and describe a typical day for you.
3) What are some of the services taxi drivers have given "above and beyond the call of duty"? Do they encounter many emergencies or needs for help?
4) Ask some cab drivers about some of their funniest working experiences. Most frightening. Saddest.
5) Get some of their opinions about humanity in general. They're with humanity all the time.
6) Can just anyone with a driver's license become a cabbie? How do requirements vary from place to place?
7) How are cabs routed? Fares set? Records kept? Drivers paid?
8) Describe how a dispatcher does his job.
9) What would the taxi business be like without radio?
10) What security measures are being taken by some cab companies for their drivers? What are some safety measures individual drivers use to protect themselves against harm?
11) How does the taximeter work?
12) What sets of regulations control the cab business here?
13) Find out about the first motor taxi in the United States.
14) Before that, were there horse-and-buggy taxis?
15) What different kinds of passenger-carrying vehicles have there been around the world--past and present?
16) What are some of the "group reputations" cab drivers of different cities have?
17) Do you think the taxi business will grow or decline in the future? How may it be affected by fuel shortages, pedestrian cities, and environmental controls?

TELEGRAPH

Resources

Western Union Telegraph Company
120 West Third Street
Mr. John Gray, Manager
372-5865

Tours can be arranged.

An Exercise for the Student

As a science project, put together a simple telegraph set of boards, nails, wire, metal, and a battery. Then use it.

Questions for Inquiry

1) Look up the history of the telegraph's development and its subsequent improvements.
2) Was it possible before the discovery of electricity? Before the first electromagnets?
3) Explain how the telegraph works.
4) Describe its most modern forms.
5) How did the telegraph hasten and help in the westward development of the United States? What earlier communications system did it put out of business?
6) Figure out a connection between telegraph services and the following: weather, money orders, trains, candy, banks, flowers, stock exchanges, facsimiles.
7) What are the most common telegraph services used by businesses?
8) Is the telegraph used by national news services?
9) What are the chances that the telegraph will become obsolete?

TELEPHONE

Resources

Southern Bell Telephone and Telegraph Company Miss Barbara Dobson School Representative 525-4977	For K-6 they will send a speaker to the schools and for 7-12 they will arrange tours of the facility which can be tailor-made. They also have film strips, brochures, etc., on almost any aspect of the telephone business, past present, and future.
Western Electric 2901 North Tryon Street Mrs. Brantley, or Personnel Department 373-3928 or 373-3959	For 6th grade and up, tours of the facility where Southern Bell equipment is repaired, rebuilt. Also a film and speakers available to all classes.

An Exercise for the Student

We twentieth-century creatures think we're so independent. Actually, we depend on--and take for granted--aids our great-grandparents would have called miracles.

Can you imagine--and describe, in a story, perhaps--even some of the consequences and the chaos if the phones everywhere went dead for a week?

P. S. The telegraph still works!

Questions for Inquiry

1) What was Alexander Graham Bell experimenting with when he discovered the principle of the telephone?
2) What kind of dispute did he have with Western Union over the new invention?
3) Find out how many lawsuits were brought against Bell by people claiming to have invented the phone first.
4) Who was the first person to have a telephone line installed?
5) Follow the steps in the improvement of the telephone system up to the present.
6) Learn how the telephone in your home works. Diagram it.
7) Try to learn how a switching system works. What happens at the phone company when you dial a number?
8) How can many calls be carried all at the same time, over the same wires and through the same cables?
9) What is a coaxial cable? How many calls can one carry?
10) How are radio waves partners in the transmission of long-distance calls?
11) How are calls transmitted overseas? Can you call anywhere in the world?
12) How has the transistor improved the phone system? Communications satellites in orbit around the earth, such as Early Bird?
13) How is the "Hot Line" set up between the White House and Moscow?
14) What is the background of public utilities? How do they operate? Who regulates them? Who owns them?
15) How is Southern Bell organized into departments? How autonomous are the departments?
16) Describe some of the many careers and jobs connected with the telephone company.
17) How have the jobs changed with the changing systems and equipment? With the attitudes of the times? Have some jobs disappeared altogether? Have new ones been created?
18) What education, training, and skills do the different jobs require? How much training does the company provide?
19) How is Southern Bell carrying out a modern policy of greater freedom and greater responsibility for its employees?
20) In what ways does the phone company encourage community service?
21) Look up the styles of telephones over the years and see how they have continually changed. Do ours today resemble the earliest ones at all?
22) In a world advancing as fast as ours, developments in any one area are important to all the other areas. Find some ways the telephone depended on other discoveries before it. Find ways it has joined with other modern technologies for new results.
23) What's ahead for the telephone? Is the picturephone next? How may the laser prove to be a big step forward in communications? What futuristic services are predicted via phone: Will you dial numbers to pay bills and deposit checks? To turn off the stove in an empty house? (Is this a marriage between phone and computer?)
24) Being a forward-looking utility, is the phone company moving away from those ugly poles?
25) What are telephone costs and services like around the world?

TELEVISION

Resources

WTVI-TV 42 Coliseum Drive Mrs. Carole Heck Promotion Manager 372-2442	Will arrange tours of the entire facility and give materials geared to various grade levels. They usually do not go to the schools but prefer that the students come to them.
WCCB-TV 1 Television Place Mr. Rick Ray Program Director 372-1800	Will gladly arrange tours.
WSOC-TV 1901 North Tryon Mr. Sterling Wright Director of Public Relations 372-0930	Will arrange illustrated classroom talks and tours of their entire facility. And are open to any suggestions teachers have as to what they may provide.
WBT-TV 1 Julian Price Place Mr. Larry Harding Personnel Manager 374-3854	Offer tours and speakers... and rides on the double-decker bus.

An Exercise for the Student

Write a television script titled "The Making of a TV Program." The cast of characters would include producer, director, actors, announcers, script writers, set and prop designers, cameramen, and engineers. The "plot" would follow the creation of the program from beginning to finished form. Keep the plot accurate, but put in all the crazy touches you want to!

Questions for Inquiry

1) If you have never visited a television studio, try to tour one. Compare what you see there to what you see on the screen at home. Is the real thing at all disappointing to you? Explain why or why not.
2) How do television lights and cameras work together in the hands of experts to create their own magic, their own world of illusion?
3) How are television pictures transmitted? What is the relationship to radio?
4) How is color transmitted? What makes color sets so much more expensive than black and white?
5) How is the electromagnet fundamental to the existence of television?
6) How long a time passed between the first theories and experiments dealing with television and the making of the first sets? After that, follow the growth of the industry.
7) Compare local and network programming.

8) What officials decide the programming of a station? A network? On what do they base their decisions?
9) How much government regulation is there of television and its programming? What needs are there for this?
10) Discuss the whole question of censorship--at what point it begins, how you would define it, how you feel about the idea.
11) What are the advantages and disadvantages of live and filmed or taped shows?
12) Where do television networks and stations get their money?
13) Study the whole area of commercials and ratings.
14) Does commercial television really reflect the tastes of the viewers?
15) How do the Nielson ratings work? Do you think they are accurate?
16) Does television really answer demands--or does it create and manipulate them? (How does the industry explain the great success of programs like "All in the Family" and "Sanford and Son"--both of which were reluctantly and skeptically put on the air?) Discuss the philosophy of giving the public only what it wants.
17) Learn about the many kinds of careers included in the television industry. Think of all the different interests that have a place there.
18) What is educational television? The Public Broadcasting System? Subscription TV? How do they differ from commercial TV?
19) What is closed-circuit TV? How is it important in industry? Stores? Sports? Prisons? Military uses?
20) Imagine other possible uses of television--good and bad.
21) How is it used in the novel 1984? In Brave New World? In The Fireman? Find other books with futuristic uses of television.
22) Talk about the importance of television in our lives: to education, art, the making and recording of history, as a campaign device, etc.
23) How do we guard against the misuse of television?
24) Whole books could be, and probably have been, written about the effects television may have on people and history. Discuss television and the problems of youth (Has it produced a "push-a-button-for-instant-pleasure," instant-solution generation, as some say?) Does it make people think more and more alike? What are political effects of TV's "instant history"? Does the presence of TV itself create news situations? Alter them? In other words, does Television, in recording history, also change it? How does TV help create personality cults? Does it make for a gullible public that believes everything it sees or a skeptical one? Has it changed reading habits? Has it changed the movie industry?
25) Discuss the psychology of chronic television viewers and their reasons for addiction to the set. What kinds of people watch little or no TV?
26) Discuss the implications of living life yourself or getting your kicks by watching others live it and act out living it.

TEXTILES

Resources

American Textile Manufacturer's Institute (ATMI) 1500 Johnston Building Mr. Love or Mr. Armstrong Public Relations Department 334-4734	This organization can speak for and get in touch with anyone in the industry. Please call on Monday or Friday and they will arrange class talks or supply a wealth of educational materials, or aid in arranging tours.

Celanese Corporation Barclay Downs Drive Mr. Jim Allen 377-7411	Can provide speakers to coordinate with teacher's needs.
Johnston Mills 3315 North Davidson Street Mr. Brackett 332-3467	Will cooperate in any way possible.

An Exercise for the Student

Collect an assortment of small samples of cotton, wool, linen, silk, and rayon; but do not label them. Let the students perform certain simple tests to show what fibers each cloth is made of. Synthetics and mixed fibers do not lend themselves to this, but could be included to make it more interesting.

Questions for Inquiry

1) Tell what textiles are in the broadest sense. What is the literal meaning of the word?
2) What are the three biggest categories of usage for the most common textiles? What kind of usage accounts for the greatest demand for textiles? Give a few examples of the kinds of textile products in this category.
3) How are textiles used by nations in wartime? By theatrical concerns? As packaging? In typewriters?
4) Textiles are often classed by what they are made from. Play "Animal, Vegetable, or Mineral" with the natural fibers. What are some of the interesting raw materials used to create synthetic fibers?
5) How are chemicals used in the manufacture of textiles? Tell some of the special characteristics they can create in fibers. What treatments can be given to the surface of cloth?
6) How is glass incorporated into textiles? Plastics?
7) Describe some different types of twists possible in yarns. What special purposes does each have?
8) How have special textile needs been created by progress in other areas? How has research in the textile field answered these needs?
9) Study the use of laboratories in textile production and testing.
10) Many laws regulate the textile industry. Find out about the more interesting ones. Labeling laws are extremely strict. How many of these are voluntarily adopted by the industry itself? Explain the need for laws and restrictions here. What Federal agency oversees the textile industry?
11) Careers and jobs in textiles are legion. The most obvious ones would appeal to those interested in business, science (lab work and research), selling, and factory work. Pick an area of interest and study the opportunities there in detail.
12) How is the textile industry affected by imports? Exports? Developments in world trade? Inflation? Depression? Relations between labor and management? Activities of labor unions?
13) The origins of weaving cloth are lost in the oldest past. So far, where has the oldest evidence of real cloth been found?
14) Try to imagine how people first thought of weaving and what materials they used. Experiment with it yourself.

15) When in history did the production of cloth move from the home and hearth to the factory? When did this change become complete enough and cheap enough to benefit almost everybody? What mechanical inventions were at the heart of the change?
16) Pick a cloth -- silk, cotton, linen, wool, polyester -- and find out about its history.
17) When did people begin to weave designs into cloth with different colored threads? How were the yarns dyed in the past?
18) Experiment with some natural dyes.
19) Weaving by hand loom is not dead! Learn how it is being newly appreciated as both art and craft.
20) Were some colors or cloths traditionally associated with wealth or royalty? Why?
21) Trace a dress Queen Elizabeth I wore back through its many probable steps from field to royal wardrobe.
22) List myths, legends, or tales that have to do with weaving cloth.
23) Find evidence or description of beautiful woven cloth in ancient art or literature.

TOURS--LOCAL

Why is Charlotte here? Places, like people, are products of their past. To ignore our history is to deny part of our identity. Not to care about what shaped us is to lack understanding of who and what we are. Although not as old as many southern communities, Charlotte-Mecklenburg's past is fascinating; and its landmarks, though tragically diminished by "progress," are its very own and well worth seeing.

What parts of modern Charlotte do you think will be landmarks on the distant streets of the future that your grandchildren and great-grandchildren will walk? And how precious then will be the places we already call old today, if we care enough to save them?

Some Interesting Places to Visit in the Charlotte Area

James K. Polk Cabin and Visitor Center At Pineville	Restored birthplace and boyhood home of the 11th President of the U. S. Films, displays, and guided tours at the Center.
Hezekiah Alexander Rock House Off Shamrock Road	Oldest house in Mecklenburg County, built before 1775.
The Mint Museum Hempstead Place	Federal style architecture; built as a mint in 1836 during Charlotte's short era as a gold town. Relocated to its present site as an art museum in 1936.
First Presbyterian Church West Trade Street	Features of Gothic architecture; a landmark since 1857.

Old Settlers' Cemetery Fifth and Church Streets	Since early days of Charlotte; a burial place of many of its prominent citizens.
Sugar Creek Presbyterian Church	One of the oldest churches in Mecklenburg, established 1855; the chief meeting place in the area for many years.
Old Courthouse Replica Governmental Plaza Third Street	Copy of the building where Mecklenburg Declaration of Independence was reportedly signed.
Latta Arcade South Tryon Street	Ornate and luxurious business plaza built in 1914 and recently restored by Harry Wolf & Associates. Features details such as marble floors, inlaid mahogany, and leaded, cut-glass transoms.
Marshall Park McDowell Street	A landmark for the future? Sparkling water and blankets of green soften and humanize the surrounding city and provide peace in the midst of the pace and pressures of commerce.

TRAVEL AND TRAVEL AGENCIES

Resources

Gulliver's Travels Suite #479 1 Charlottetown Center Mrs. Christine Cleaver Travel Representative 334-7301	Can supply classroom speakers on the business of travel and posters or brochures.
International Travel Specialists 1501 East Third Mrs. Virginia Burkhead Educational Travel Consultant 372-5200	Will give program on any country to any grade level, furnish displays, slides, film for any country, and conduct travel seminars.

An Exercise for the Student

Go around the world--with travel brochures. Collect them together as a class, and display them. Trace your "travels" with pins on a large map.

Questions for Inquiry

1) Is travel only for the rich? Explain your answer.

2) Compare the availability, economics, destinations, and modes of travel today and in 1948, 1920, 1900, 1850, 1600's, etc.
3) What is the story behind the start of the travel agency business?
4) What services do agencies offer the traveller? Who pays?
5) What are some of the biggest problems agencies must deal with?
6) What can an agency do when a customer gets stranded half way around the world? When a customer is treated unfairly by a recommended hotel or resort?
7) Have a travel agent give the class an example of one of its most involved tours.
8) What continuing relationships and knowledge must an agency maintain in order to make such complex arrangements?
9) Compare the professionally planned trip, the personally planned trips, and the unplanned one.
10) What careers are available with travel agencies? What education, training, and personal qualities are needed? What is the income range? Do travel agents get to travel?
11) What are some of the reasons people have for travelling?
12) How has the modern increase in travel affected the buying tastes of the U. S. public?
13) What are some of the favorite tourist spots in the world? Does the popularity of areas go in trends? Why?
14) Are there any remote places left to escape to?
15) What determines the tourist season at a place?
16) Who have been some famous tourists through history? Have their accounts of their travels been preserved?

TRUCKING

Resources

Delta Nu Alpha Fraternity and Area Communications in Trucking Mr. T. R. Decatur,-President (Carolina Freight) 596-1221	Will arrange slide presentation, provide speakers and arrange for tours by drawing from the entire trucking industry.
Akers Motor Lines, Inc. 4101 South Interstate 85 Mr. Herbert Hunt, Publicity and Promotions Manager 392-2311	Offer free teaching aids and do have tours of their plant.
Thurston Motor Lines, Inc. 600 Johnston Road Mr. Harvey Shafer, Ext. 220 or Mr. Franz Holscher, Ext. 239 334-2813	Will arrange tours of the terminal and give classroom lectures on the trucking industry.

An Exercise for the Student

Study and report on how the advances in motor transport have changed farming in this country. Make your report visible with a large outline or diagram

to chart the major steps of change and the different areas of the country they affected first.

Or do the same thing with an industry of your choice.

Questions for Inquiry

1) Imagine that all the trucks suddenly stopped running. How would our grocery stores, restaurants, and supper tables be different? Department store shelves? Our streets and highways? Our construction projects--like the new buildings downtown? Our interior decorating and furnishing projects? Our gas stations?
2) Explain a few of the historical factors that have stimulated the growth of the trucking business from a small beginning to today's giant.
3) How does Charlotte rank as a hub of the trucking industry? Give some reasons that this is a trucking center.
4) Make a chart comparing the statistics of several states on highway usage by trucks and the taxes paid by trucks to the highway systems.
5) Describe the status of trucking in other countries.
6) How has the growth of trucking had a special influence on the life, culture, and sophistication of small towns around the country?
7) Has trucking stimulated the growth of new cities?
8) Go to the store and get a banana, an orange, a few grapes, an apple, a strawberry, a lemon. Chances are that no matter where you live or what time of year it is, you can find all of them. Ask the produce manager where they came from. Did they come by truck? What special kinds of trucks are necessary for such shipments? What special packing?
9) Investigate the magnitude and variety of materials used to manufacture trucks.
10) How many kinds of trucks can you think of?
11) What kinds of fuel do tractor trailer trucks use, and how much?
12) What different sets of rules, regulations, and requirements must the trucking industry honor? Does the variety of different state regulations controlling any truck and its driver cause problems?
13) What Federal agency oversees trucking?
14) What is it like to be a truck driver or a truck driver's family?
15) What are the good parts -- and the bad -- of being an over-the-road driver?
16) Do truck drivers have their own colorful jargon? Their own "truck-stop culture"?
17) Tell some ways truck drivers are known to go out of their way to help people in trouble along the highways. Why do you think this is so?
18) How real is the burly, grease-smudged, rumpled, Marlon Brando-like stereotype of a truck driver?
19) One of a driver's biggest enemies is road fatigue. How does he combat it wisely?
20) What other jobs besides driving are available in the trucking industry?
21) Talk about some of the two-way relationships between trucking and the state of the economy.
22) How do the railroads and trucking companies cooperate in some shipping?
23) The future of trucking--what are some possibilities? How would a continuing gas shortage affect it? How might it adapt and survive?

UNIONS

Resources

W. C. Barbee, President
International Brotherhood of Teamsters
Local Union No. 71
5000 North Tryon Street
596-2475

Can speak to groups about history and importance of unions.

Joe Kirk, Jr., Subdistrict Direct
United Steelworkers of American AFL-CIO
2128 Commonwealth Avenue
375-5830

Will speak to groups about union activities.

An Exercise for the Student

Divide the class into three groups representing labor, management, and the Federal Mediation Board. Set up a discussion which labor and management present their sides in a dispute, and the mediation board helps them to come to an agreement. For help in this, call Federal Mediation and Conciliation Service Commissioner, Mr. D. Yates Heafner at 372-0711. He has literature available and can help set up the session.

Questions for Inquiry

1) Why is there now a need for labor unions?
2) Who benefits from unionization?
3) Describe working conditions before 1790 when labor union formation was begun.
4) Who are some of the more colorful characters who have confronted one another in big business versus labor? Highlight their stories.
5) Discuss the use and misuse of power by the unions in politics, social reform, etc., toward union members.
6) Discuss the potential for the future: a) Are unions organizing themselves out of business? b) What major technological, manufacturing and transportation changes are now occuring? c) Contrast the picture of the past "union boss" with today's image of the union businessman.
7) How does a person become an officer in a union? What are some of the qualifications for union leadership?
8) How do labor unions feel about the four-day week? Why?
9) Tell all about Labor Day.
10) What methods does organized labor use in attaining desired goals?
11) Does the union seek to educate its membership as to every job's importance and how the whole is the sum of its many parts?
12) A knowledgeable union member (but preferably an organizer or officer) would deal in such jargon as union fees, "open" shop and "closed" shop, strikes, cost of living index, wage-price spiral, retirement benefits, health insurance, race relations in the union, automation, child labor, and unionism versus capitalism -- seek him!

UPHOLSTERY

Resources

Wilson and Son 504 Roundtree Drive Mr. Bob Wilson 523-1698	Will give class lectures, provide information and materials, and arrange shop tours.
H and F Upholstering Company 1913 Cleveland Mr. R. E. Hammerick 375-3945	Will lecture to classes and arrange tours.

An Exercise for the Student

After a visit to Goodwill or the Salvation Army, salvage a broken down, over-stuffed chair by applying some of the advice you have gotten from a professional upholsterer.

Questions for Inquiry

1) Where did the practice of upholstering furniture begin? What might it be like if school desks were upholstered?
2) Observe different upholstered furniture and determine how the fabric blends and compliments the particular piece. What would happen if you were to change the fabric?
3) Consider what went into making your favorite chair so comfortable.
4) What varied skills must a good upholsterer possess? Are there upholstery schools or do most upholsterers learn their trade through an apprentice program?
5) Compare the procedures of running a small shop with those used in a larger business.
6) Make a list of all of the places you might find an upholsterer employed (from an automobile repair shop to a movie theater).
7) Why might some stores order furniture that is definitely uncomfortable?
8) Has the work of an upholsterer been taken over by the machine, or must both man and machine work hand in hand to turn out the finished product?
9) Interview an upholsterer and get his point of view on changing tastes in style, improved quality of fabrics, different techniques of webbing, and changes in amounts of order.
10) How has our "throw away culture" affected the upholsterer's business?

Resources

League of Women Voters 1820 East 8th Street Mrs. Baird Wonsey 377-2207 or 332-3574	Will arrange for a member of their Speaker's Bureau to come to the classroom.
Mecklenburg County Board of Elections 720 East 4th Street Mr. William Culp, Jr. Executive Secretary 374-2133	Will conduct seminars and speak to classes on topics covering all phases of the election process.

An Exercise for the Student

After studying election and voting procedures, review your school's election regulations and past voter turnout. Then suggest concrete changes or amendments which might improve the present school system. Remember this entire complex system has been designed because your opinion is important.

Questions for Inquiry

1) Why vote in a democratic society? In a totalitarian one?
2) Find out when the next election is to be held and conduct your own public opinion poll. Ask such things as how much of an effect campaigning has on a candidate's success or failure. What are some of the reasons people give for liking a particular candidate?
3) Do you think that publishing the results of a public opinion poll or a television projection figure before an election affects the final outcome?
4) What do the Fifteenth and Nineteenth amendments to the Constitution have to do with voting?
5) How does the "one man, one vote" system differ from the electoral college?
6) How has suffrage been extended over the years?
7) What are the residency age and literacy requirements for voters in Charlotte? Why must one register to vote?
8) Government in the United States works on four levels: the local, the county, the state, and the federal. How do elections differ according to these levels?
9) Why do we have political parties? What kinds of processes precede final elections, such as nominations, conventions, and primaries?
10) How do voting machines work? How are the votes counted? When may a candidate demand a recount?
11) Research some infamous voting scandals of history.
12) Compile a dictionary of voting and election terminology for students on another grade level.
13) What are some methods which could be used to turn out a larger percentage of voters in every election?
14) Should government officials be allowed to do what they want (as long as it is legal) to get a candidate or incumbent elected?

Resources

Charlotte Water Dept. Mr. Lee Duke or Mr. L. B. Van Hoy or Mr. Henry Forrest 374-2265	Will send someone to schools to speak, can arrange visits to the Waste or Water Treatment Plants, and have color movies they will make available.
Mogul Corporation Inc. 1201 S. Graham Mr. Owen Foster, Environmental Testing Program or Mr. W. H. Shinn, Divisional Mgr. or Mr. Stafford Davis, Regional Mgr. or Mr. Robert Dowdle, Service Dept. 375-5726	Need advance notice to prepare tour and slides on waste water studies. Can demonstrate equipment. Tour through their bacteriological lab.

An Exercise for the Student

Trace our Charlotte water--its route and the different steps of treatment--from the Catawba River to the faucet in your home, then down the drain and back again. Draw a diagram to illustrate.

OR

Do some simple experiments to demonstrate a few of the characteristics of water such as surface tension and capillarity.

About Water

The earth's water is a constant, fixed supply that has been here since the start of the world. In the conservationist way of nature, it has gone through endless cycles from ice to liquid to vapor, being used and reused over the ages.

In places where rainfall and water is adequate, few think much about its preciousness. Its very bounty makes us take it for granted. We think of it as mistakenly as we do of air as a commodity endlessly and magically available. We have scarcely a thought to spare for the human complexities that clean it up, bring it to our towns and cities, and guide it straight to the touch of our fingers.

Not everyone is lucky enough to be so thoughtless. In many places of the world, people live daily with dust and drought, and distant, undependable sources of water. To ask certain of the world's peoples to imagine our average individual American consumption of seventy gallons a day would be like asking a child in the African bush to describe snow.

In times of natural disaster, such as earthquake or flood, when water systems are disrupted and water supplies poisoned with contamination, many others have come face to face with a sudden realization that, despite the earth's bounty and the elemental, life-giving necessity of water, the supplies of civilization are fragile webs.

Questions for Inquiry

1) What are cities' main sources of water? How do they obtain it and make it usable? Describe some water systems of large cities of past times. Tell how villagers got their water.
2) Discuss underground water and how it is located. Tell how wells are drilled and how they were dug in past times. Learn about wells in history and the bloody disputes that centered around them.
3) What's behind the fast-increasing demand for water? What does a fixed amount at any one time and a continously growing demand add up to?
4) How much of the earth's water is fresh (instead of salty) and accessible? How evenly is it distributed around the globe?
5) What is the difference between consumptive and nonconsumptive use of water?
6) How much water is used to produce a pound of grain for feed? A cow? A chair? A dress? Make a chart of similar statistics.
7) Write down all the water you use in a day. How much was necessity? How much was comfort and convenience? How much was waste?
8) What is being done now to insure adequate water supplies for the future?
9) Catalog man's major uses of water, from power to food.
10) Think how many subjects could be approached from a water viewpoint, from chemistry to history, and all in between.
11) Discuss water as a shaper of land and civilizations.
12) Have you ever seen a crystal-clear stream or lake that you could drink from safely, or that you could step into and look down through to see your toes? If so, where?
13) Think of all the ways that nasty, polluted water robs human beings. What are our chief pollutants? How many of them are new to water in our generation? How much pollution comes from giving waters more waste than they can handle?
14) Learn about the measures being taken and research under way to combat pollution of our waters.
15) How does science have to be careful in solving pollution problems, not to create others?
16) Find some examples of lakes or rivers that have been nursed back to health. How was it done?
17) How big a role is the government playing in cleaning up water? How much responsibility is it taking?
18) Write a story of a lake. It sits glistening in a valley, clean and untouched and inviting. People find it and begin to flock there to live....
19) Do scientists believe there is water on other planets? In space itself?
20) Try to describe the sensual appeal of water. How can it be poetry? Beauty? Music?
21) Play records of musical compositions inspired by water. Read poetry and look at paintings that are water-inspired.
22) Find out about the place of water in the Yin-Yang philosophy of ancient China.

WEATHER

Resources

National Weather Service Douglas Municipal Airport 399-5631 Weather forecast: 392-1361	Material is available and the airport manager arranges tours of entire facility.
Dept. of Geography and Earth Sciences UNCC Mr. John Bedford, Instructor or Mr. Norfleet Jarrell, Instructor 597-2293	Will act as research personnel for finding information and materials. Can speak to classes occasionally.

An Exercise for the Student

Learn to read a weather map.

or

Make your own rain by holding a chilled, dry soup ladle in the path of water vapor produced by a teakettle of boiling water. The vapor's condensation on the cool metal will quickly cause falling drops of water.

Questions for Inquiry

1) Talk about the chief elements that make up weather.
2) Explain some common weather terms such as high, low, pressure, front.
3) Describe some of the constants or set patterns involved in the shaping of weather: Equatorial low, polar high, trade winds, prevailing westerlies, and jet streams. Explain the connection between the Coriolis force and the earth's rotation. What are its effects on winds and air masses?
4) What are some general origins and directions of different weather patterns?
5) How does the earth's terrain affect the weather?
6) Discuss some of the ways used to predict the weather: methods of observation, measurements and data, tools of the trade, maps and symbols, knowledge of patterns, logical thinking.
7) How is the U.S. Weather Bureau organized? How are its branches spread out? From what sorts of places do they operate, and why? Discuss the scope of its data and records. How do other Federal agencies help?
8) Are weather-forecasting systems similar the world over?
9) How do different countries co-operate in weather prediction?
10) Trace the history of weather forecasting: Folklore and observation in history, the contribution of Benjamin Franklin, the importance of the telegraph's invention, and the first weather-forecasting systems.
11) Follow its steps of advancement up through today's newest aids--including computers, satellites, and modern photography.
12) Catalog the important uses of weather-forecasting--from aviation and farming to sports events!

13) Weather control is still in its infancy, but research and experiments are expanding. Talk about possibilities of controlling the weather in the future - and the questions that raises. (For instance, who gets to say? Whom do you please?)
14) How is the weather used in writing and dramatics to produce moods and backgrounds?
15) Find examples of art and music inspired by elements of weather.

WINDOWS

Look at the window nearest you. Is it open or closed? Is it covered at least partially by curtains, a shade, venetian blinds, shutters? How do you feel when it is open? When it is closed? When the shades or curtains are drawn? How does a decorator create a happy feeling with window treatment? A sad feeling?

What different kinds of windows can you think of? What sort of mood or feeling is evoked by some of these different kinds? (a picture window, a bay window, a barred window, a French window, a stained-glass window) How do you feel when you are in a room with no windows? With too many windows?

Paint a picture or write a poem depicting a snowflake melting against a window... rain patterns on a window pane...a child with his nose pressed against a window.

Windows can be a barrier to the outside world, or a link with it. Think of the loneliness you feel looking out of a window, when every one else is out, and you have to stay in.

Look out the window nearest you. Mentally note everything you can see, then go back and look again for something you might have missed. Choose one window and make as many observations of scientific data as you can through the changing seasons.

What would you see out of a window in Malaysia? In Los Angeles? In Kenya? In Alaska? What would you see from the porthole of an ocean liner, a bathysphere, an airplane, a space ship? From the window of a speeding train? If you lived in a basement apartment with a little window that was on the sidewalk level of a large city, describe what you might see during one day.

The word window is often used symbolically to refer to some other kind of opening through which one can see what is outside and what is within. Peter the Great of Russia spoke of his great desire to have "windows on the West." What did he mean, and how has this philosophy continued through Russian foreign policy? How could you consider a microscope as a window? A telescope? How are our feelings and hangups windows to our inner selves? How can a mirror be considered a backwards window? How is television a window to the world? Find out how Senate hearings could be considered windows to government. Discover as many plays, stories, movies, songs, or paintings as you can that have been done from the point of view of a window. ("Rear Window", or "Eleanor Rigby", for example) Discuss the statement "The eyes are the windows of the soul."

Resources

National Organization for Women Ms. Karen Edwards, Pres. 523-1739 or Ms. Becky Talton, Program Chmn. 535-1433 or Ms. Lynda Franklin 525-3504	Maintains a speakers bureau and will be happy to arrange classroom talks on the changing roles of women.
Charlotte Women United Ms. Janice MacKeigan 334-9655	Will be glad to provide classroom speakers.
Junior Woman's Club Mrs. H.G. Little, Jr. 366-9657	Will be glad to give demonstrations to elementary school classes (Green Circle) on human relations. Also offer a puppet show on safety to kindergartens, and to home economics classes a talk on household safety.
Junior League of Charlotte Mrs. James F. Alexander Community Arts Council Chmn. 364-6797	Will co-operate with the teachers in any way.

An Exercise for the Student

Have the class compile a list of the ten most important women of history. Criteria of selection should be carefully considered before the final choices are made. These could include their impact upon their own time, upon later generations, personal qualities, opinions of their contemporaries, etc.

Questions for Inquiry

1) Have each member of the class write their individual concepts of women and their role.
2) Give as many reasons as you can for the growth of the woman's liberation movement in recent decades. Why hasn't it happened before?
3) How do cultures which are matriarchal in organization differ from those which are partiarchal?
4) Comment on the following statement and its implications: "Struggles for social justice helped us see that the existing distribution of power is not 'natural'... "--Gloria Steinem.
5) Make a list of all of the instances you can think of in our present American society that discriminates against women.

6) Ladies of art (the Mona Lisa), ladies of the theater (Dame Judith Anderson), ladies of literature (Emily Dickinson) - all have been a part of our cultural heritage. Take any two of the fields in the creative or performing arts and contrast differing portrayals of women.
7) How do advocates of women's liberation view Miss America contests, unequal pay for equal job performance, motherhood, advertising practices.
8) How before women's liberation did women wield power like, Lady Macbeth, Eleanor of Aquitaine, and Rose Kennedy?
9) What do various other countries and cultures value in their women?
10) Research some women in war: Rosie the Riveter, Israeli Freedom fighters, Bedouin women wailing their men to war, mothers keeping the home fires burning, Joan of Arc, Mata Hari and other spies, camp followers.
11) Are there truly any inherent differences between men and women or are they all learned and acquired differences?
12) What exactly is femininity, masculinity? How could your definitions of these concepts be ambiguous?

WRITING

Resources

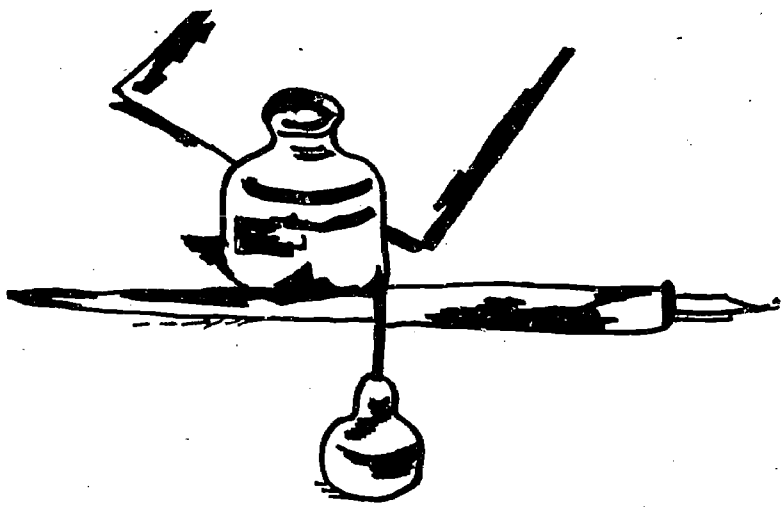
Charlotte Writers Club	Will provide speakers to classes about writing for publication.
Mr. Boyd Blanton 537-5045	Will speak on non-fiction.
Mrs. O. W. Clayton 366-9428	Also will speak on non-fiction.
Mr. Jack McLarn 523-8527	Will speak on children's stories.
Poets in the Classroom (See - The Creative Arts)	
The Charlotte Magazine Ms. Betty Hill Folts, Editor Vision Magazine Mr. Mike McCulley, Editor Mr. Rick Young, Marketing Director 12211 Westinghouse Blvd. 588-2120	Will speak to classes about putting a magazine together, and arrange tours to see actual magazine production in action.

An Exercise for the Student

Go to the library and consult the most recent edition of a marketing guide for writers; such as Ulrich's Periodicals Directory or Writer's Market. From it pick a magazine to study by reading several current issues. Determine the kinds of stories and articles it publishes and the type of reading audience it is geared to. They try writing a polished original short story or a carefully thought-out article with a fresh approach. Submit your work in acceptable manuscript form, accompanied by a large stamped and self-addressed envelope. Then wait! In a matter of weeks you should receive an answer. Considering the amount of competition in this field, don't be too disappointed if the answer is a rejection slip. But you are serious about writing, keep on trying!

Questions for Inquiry

1) Describe the life of a writer. What are its advantages? Its disadvantages? What about it appeals to you.
2) What kinds of free-lance writing are there? What different types of reading audiences? What specialities?
3) Learn about salaried writing jobs. About journalism both as a career and as a launch into other writing. Which kinds of writing jobs are new to this latter twentieth century?
4) Do most free-lance writers combine their writing with a salaried job? Why?
5) At what point would a writer consider getting a literary agent?
6) Describe a literary agent's job. Does it appeal to you?
7) How stiff is competition in writing?
8) List a few of the books available for the aspiring writer--both those that teach the craft and those that list the markets.
9) What sort of education and background is most helpful to a writer?
10) What about correspondence courses in writing? Are there any really good ones that are not exorbitantly priced?
11) If you're seriously interested in writing, one of the most important things you can do is READ, READ, READ. Why is this?
12) If you are good at writing and have other strong interests, too, consider combining your interests with writing. Think of ways the craft can be used in science, art, business, medicine, history, and travel.
13) Find out the staggering number of books published yearly in the U.S. How does it compare with other countries? (Can TV have diminished reading very much?)
14) Read about the lives of some famous writers. Learn which ones were unappreciated in their own time but accepted later.
15) Discuss censorship--what it is, its philosophy, and how it affects literature and society in places where it is rigidly practiced.
16) What would you read if you lived in China?
17) Discuss writing (a) as a profession (b) as a hobby (c) as instruction (d) as fulfillment.
18) Study the long history of writing. What universal and timeless subjects stretch back to the earliest writings, and beyond?
19) Find a children's magazine that publishes readers' work and submit one of your poems or stories for publication.



X-RAY

Resources

Gammax, Inc. 1452 Medford Drive Mr. Tony Funderburk 376-6221	Will speak to classes about industrial x-rays and help in any other way.
Law Engineering Testing Company 501 Minuet Lane Mr. Earl Page 523-2022	Will speak to classes and show some pieces of equipment.
X-Ray Department Charlotte Memorial Hospital Mrs. Susan Marwitz Program Director of the School of Radiologic Technology 373-2270	Can talk with classes about medical x-ray.

An Exercise for the Student

Imagine that you have x-ray vision that you can turn on at will. What would the inside of a clock look like? A desk? A closet? A tree? A school building? A city? What are some of the fun things you could do? How could you help people? What are some things that would be less beautiful to look at if you had x-ray vision? Discuss the statement that man may be better off without some of the superhuman powers that he sometimes desires.

Questions for Inquiry

1) Exactly what is an x-ray? How does it work?
2) How do you determine the proper voltage, current, and exposure time?
3) How does the dark room chemistry work?
4) Give some examples of how x-rays are used in preventive medicine, in diagnosing, and in treatment.
5) What things does an x-ray of the human body not show? How does a doctor sometimes overcome this problem?
6) What are the harmful effects of excessive radiation?
7) Discover the part that Davidson College played in pioneering x-rays.
8) Why is it necessary to x-ray teeth?
9) How are dental x-rays used in identification? Find out about some famous police cases involving dental x-rays. (Martin Bormann...)
10) Make an analogy between the discovery of penicillin and the public attitude toward venereal disease, and the discovery of x-rays and the public attitude toward tuberculosis.
11) Draw and explain the circuit diagram of a six-tube installation.
12) In what areas have x-rays been replaced by other more effective and perhaps safer means?
13) Is lead the only effective shield against radiation?
14) How are x-rays used in industry?
15) How are x-rays used in evaluating and examining works of art? In archaeology?
16) What would be missing in the world if there were no x-rays?

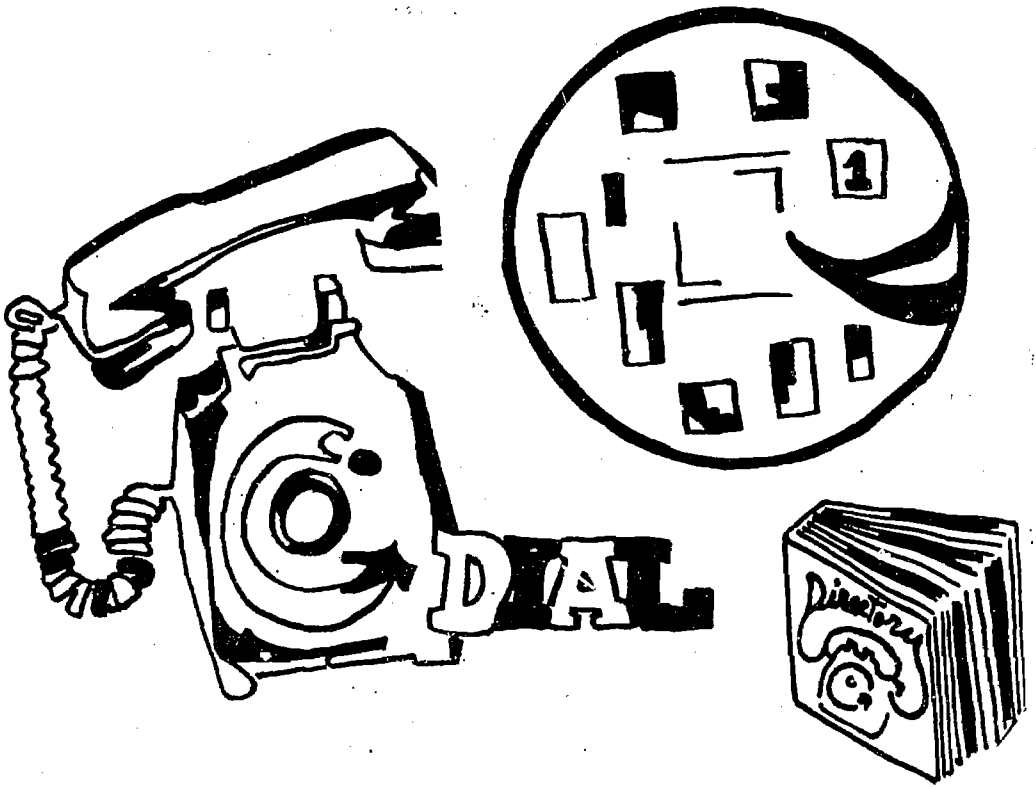
YELLOW PAGES

Resource

Your telephone book

The Yellow Pages are an alphabetical index to the life of a city. They show who is doing what and what is being done. In the Yellow Pages you'll find things like zip codes, a history of the city, postal information, and names, addresses, and phone numbers of businesses, clubs, social organizations, professional people and services of which the city is made.

The Yellow Pages give impetus to a walk within a city. It can be a walk in the rain, a walk at night, a walk in a suburb, a walk downtown. Use these Yellow Pages as a tour guide as you walk and look and live in your city.



ZONING

Resources

Mecklenburg County Planning Commission
Mr. Fred Bryant
Director of Current Planning
374-2205

Will be available to talk with classes.

Questions for Inquiry

1) What is zoning? How does it affect traffic congestion? Seek to promote health and welfare? Protect its citizens from fire and other hazards?
2) What is the history of zoning legislation? Where does the authority for zoning come from?
3) How do we reconcile zoning restrictions with our heritage of individual property rights? What is meant by "public interest" or "common good"?
4) How are the standards developed for zoning ordinances? Can a zoning ordinance be arbitrary or capricious? What preliminary studies should be done before establishing a zoning ordinance?
5) How is the inherent suitability of land for certain uses determined?
6) What role does precedent play in upholding zoning ordinances? How is zoning changed or amended? How may one be declared null and void?
7) What are the limitations of zoning? How could we use zoning more effectively?
8) How does zoning determine the appearance of our highways?
9) How does zoning affect minority groups in Charlotte?
10) What happens if the zoning is changed after uses are already established in the area?
11) What recourse does a citizen have who disagrees with a decree of the zoning board?
12) What is the zoning for the building you are now sitting in?